

Continuing Education Registry

Electrical Courses Approved

May 21, 2020 – June 16, 2020

! "At Your Pace Online" (tradesmance.com)

16 Core Credits on the 2020 NEC - Course #: 16365
Electrician Core Hours: 16.0

12 Core Credits on the 2020 NEC - Course #: 16367
Electrician Core Hours: 12.0

6 Core Credits on the 2020 NEC - Course #: 16369
Electrician Core Hours: 6.0

4 Core Credits on the 2020 NEC - Course #: 16371
Electrician Core Hours: 4.0

6 Hour Changes to the 2017 NEC Ch 6 & 7 - Course #: 16373
Electrician Core Hours: 6.0

4 Hr NFPA Electrical Safety & Fire Code - Course #: 16375
Electrician Core Hours: 4.0

12 Hour Changes to the 2017 NEC (Ch 2-5) - Course #: 16377
Electrician Core Hours: 12.0

@ Home Prep-a division of Stautzenberger College

Utah Electrical CE 2020 NEC/NFPA 70E - Course #: 16385
Electrician Core Hours: 12.0

BlueVolt

The Connected World - Course #: 16305
Electrician Pro Hours: 4.0

Bobo Technologies

NEC2020 Code Changes / Grounding and Bonding - Course #: 16357
Electrician Core Hours: 8.0

IEC of Utah

MSHA and OSHA Electrical-related safety training - Course #: 16355
Electrician Core Hours: 4.0

JADE Learning

Residential Wiring (2020 NEC) - Course #: 16327
Electrician Core Hours: 8.0

Commercial & Industrial Wiring (2020 NEC) - Course #: 16329
Electrician Core Hours: 8.0

Installing Services (2020 NEC) - Course #: 16331
Electrician Core Hours: 4.0

Overcurrent Protection (2020 NEC) - Course #: 16333
Electrician Core Hours: 4.0

System Grounding & Bonding (2020 NEC) - Course #: 16335
Electrician Core Hours: 4.0

Mike Holt Enterprises, Inc

2017 Limited Energy & Comm Syst Online Course - Course #: 16311
Electrician Core Hours: 8.0

2017 Wiring Methods & Materials Online Course - Course #: 16313
Electrician Core Hours: 8.0

2017 Understanding NEC Req Solar PV Systems - Course #: 16315
Electrician Core Hours: 8.0

MyElectricalCeu.com

Utah Changes to the 2020 NEC/ NFPA 70E - Course #: 16395
Electrician Core Hours: 16.0

National Code Seminars

NEC UPDATE - 2020 - Course #: 16359
Electrician Core Hours: 8.0

National Technology Transfer, Inc

2018 NFPA 70E / Arc Flash Electrical Safety - Course #: 16379
Electrician Core Hours: 16.0

RedVector.com

Worksite Safety 01: OSHA Safety Intro - Course #: 16281
Electrician Pro Hours: 1.0

Worksite Safety 02: OSHA Elec Safety - Course #: 16283
Electrician Pro Hours: 2.0

Worksite Safety 03: OSHA Fall Protection - Course #: 16285
Electrician Pro Hours: 1.0

Worksite Safety 04: OSHA Struck-By/Caught-Between - Course #: 16287
Electrician Pro Hours: 1.5

Worksite Safety 05 - Course #: 16289
Electrician Pro Hours: 1.0

Worksite Safety 06: OSHA Scaffolds - Course #: 16291
Electrician Pro Hours: 1.0

Worksite Safety 07: OSHA Cranes/Hoists - Course #: 16293
Electrician Pro Hours: 1.0

Worksite Safety 08: OSHA Pwr Tools/Excavation - Course #: 16295
Electrician Pro Hours: 1.0

Worksite Safety 09: OSHA Material Storage - Course #: 16297
Electrician Pro Hours: 1.0

Worksite Safety 10: OSHA Demolition - Course #: 16299
Electrician Pro Hours: 1.0

Workers Compensation Fund

Body Mechanic Techniques - Course #: 16309
Electrician Pro Hours: 1.5

Respiratory Protection - Course #: 16317
Electrician Pro Hours: 1.5

Training: Effective Safety Training Techniques - Course #: 16319
Electrician Pro Hours: 1.5

Trenching and Excavation Safety - Course #: 16321
Electrician Pro Hours: 1.5

Controlling Workers Compensation Costs - Course #: 16323
Electrician Pro Hours: 1.5

OSHA Construction Safety 10 Hour - Course #: 16325
Electrician Pro Hours: 10.0

Severe Injury and Fatality Prevention - Course #: 16341
Electrician Pro Hours: 1.5

Forklift Safety Train-the-Trainer Refresher - Course #: 16343
Electrician Pro Hours: 1.5

Incident Investigation - Course #: 16347
Electrician Pro Hours: 1.5

Behavioral Safety - Course #: 16349
Electrician Pro Hours: 1.5

Noise Control & Hearing Conservation - Course #: 16351
Electrician Pro Hours: 1.5

Electrical Exam Stats

April 2, 2020 - May 19, 2020

Exam Name	# Candidates	# Pass	# Fail	% Pass	Avg Score
UT Electrician Journeyman Code Examination	101	55	46	54%	75
UT Electrician Journeyman Theory Examination	116	62	54	53%	75
UT Electrician Master Code Examination	26	16	10	62%	76
UT Electrician Master Theory Examination	31	8	23	26%	65
UT Electrician Practical	108	48	60	44%	45
UT Residential Electrician Journeyman Code Examination	35	16	19	46%	73
UT Residential Electrician Journeyman Theory Examination	33	15	18	45%	74
UT Residential Electrician Master Code Examination	10	8	2	80%	79
UT Residential Electrician Master Theory Examination	6	3	3	50%	76
UT Residential Electrician Practical	29	11	18	38%	38

50%

Historical Data

01/01/2019 - 03/11/2020

Exam Name	# Candidates	# Pass	# Fail	% Pass
UT Electrician Journeyman Code Examination	643	302	367	43%
UT Electrician Journeyman Theory Examination	626	301	325	48%
UT Electrician Master Code Examination	180	116	64	64%
UT Electrician Master Theory Examination	193	98	95	51%
UT Electrician Practical Examination	784	342	442	44%
UT Residential Electrician Journeyman Code Examination	192	89	103	54%
UT Residential Electrician Journeyman Theory Examination	165	75	90	46%
UT Residential Electrician Master Code Examination	35	19	16	54%
UT Residential Electrician Master Theory Examination	31	21	10	68%
UT Residential Electrician Practical Examination	143	72	71	50%

48%

State	License Classification
Alabama	Journeyman Electrician
Alaska	Electrical Journeyman Certificate of Fitness
Arizona	Local Jurisdictions Only, until Contractor Level

Arkansas	Journeyman
California	General Electrician

Colorado

Journeyman
Electrician

Connecticut	E-2 Unlimited Electrical Journeyman (E-1 is the contractor)
Delaware	Journeyman Electrician

Florida	Locally Issued Journeyman that may work statewide if meets min qualifications
Georgia	No State Level Individual Licenses
Hawaii	Journey Worker License

Idaho	Journeyman Electrician
Illinois	No State Level Individual Licenses
Indiana	No State Level Individual Licenses
Iowa	Journeyman Electrician, Class A or Class B

Kansas	No State License
Kentucky	Electrician
Louisiana	No State Individual License
Maine	Journeyman Electrician
Maryland	No State Individual License

Massachusetts

Journeyman
Electrician
(Certificate or
Class B)

Michigan	Electrical Journeyman
Minnesota	Journeyworker Class A Electrician
Mississippi	No State Individual License
Missouri	No State Individual License

Montana	Journeyman Electrician
Nebraska	Journeyman Electrician
Nevada	No State Individual Licenses
New Hampshire	Journeyman Electrician
New Jersey	Registered Qualified Journeyman Electrician

New Mexico	EE-98J Journeyman residential and commercial electrical EL-1J Journeyman electrical distribution systems, including transmission lines
New York	No State License
North Carolina	No State License
North Dakota	Journeyman Electrician
Ohio	No State Individual License

Oklahoma	Unlimited Electrical Journeyman
Oregon	General Journeyman Electrician
Pennsylvania	No State License
Rhode Island	Certificate B Journeyman Electrician
South Carolina	No State Individual License (License offered through the Municipal Association of SC)

South Dakota	Journeyman Electrician
Tennessee	No State Individual License
Texas	Journeyman Electrician
Vermont	Journeyman Electrician

Virginia

Journeyman
Electrical

Washington	General Journeyman Electrician (EL01)
West Virginia	"Journeyman License"

Wisconsin	Journeyman Electrician
Wyoming	Journeyman Electrician
DC	Journeyman Electrician
American Samoa	Tradesman Certificate
Guam	No License

Scope

Journeyman Electrician. A person who possesses necessary qualifications, training, and technical knowledge to install electrical wiring, apparatus, or equipment lighting, heating, or power or control converted by this chapter . He or she shall work under a master or state certified electrical contractor and shall be capable of doing work according to plans and specification furnished to him or her and in accordance with standard rules and regulations governing such work.

An electrician journeyman certificate of fitness authorizes the holder of the certificate to perform work that is subject to the standards of the National Electrical Code established in AS 18.60.580 and 8 AAC 70.025. (See <https://labor.alaska.gov/lss/forms/electrical-stats-regs.pdf>)
Note: A certificate of fitness is a license, while the term “journeyman” is a descriptor that can refer to experience level or to a job title. A journeyman certificate of fitness can be described as a license to perform journeyman-level work in the state.

“Journeyman electrician” means an individual who possesses the necessary qualifications, training, and technical knowledge to install, maintain, and extend electrical conductors and equipment. He or she shall be capable of doing such work in accordance with plans and specifications furnished him or her in accordance with standard rules governing the work;

General Electrician is one who performs work for a C-10 electrical contractor installing, constructing or maintaining any electrical system that is covered by the National Electric Code.

"Journeyman electrician" means a person having the necessary qualifications, training, experience, and technical knowledge to wire for, install, and repair electrical apparatus and equipment for electric light, heat, and power, and for other purposes, in accordance with standard rules governing the work.

E-2 UNLIMITED ELECTRICAL JOURNEYPERSON

The holder of this license shall be permitted to do all electrical work as defined in section 20-330 of the Connecticut General Statutes, and only while in the employment of a properly licensed contractor. The requirement to qualify for this license exam shall be the completion of a registered apprenticeship program or at least four (4) years of equivalent experience and training. (20-330 reads: "Electrical work" means the installation, erection, maintenance, alteration or repair of any wire, cable, conduit, busway, raceway, support, insulator, conductor, appliance, apparatus, fixture or equipment that generates, transforms, transmits or uses electrical energy for light, heat, power or other purposes, but does not include low voltage wiring, not exceeding twenty-four volts, used within a lawn sprinkler system;)

"Journeyman electrician" shall mean a person who is qualified and skilled to perform electrical work and who has met the requirements of § 1408 of this title to be licensed as a journeyman electrician.

"Limited electrician" shall mean a person licensed by the Board to plan, estimate, layout, perform or supervise the installation, erection or repair of any electrical conductor, molding, duct, raceway, conduit, machinery, apparatus, device or fixture, for the purpose of lighting, heating or power, in any structure which contains 4 or fewer dwelling units, as determined by the applicable building code.

"Limited electrician special" shall mean a person licensed by the Board to plan, estimate, layout, perform or supervise the installation, erection or repair of any electrical conductor, molding, duct, raceway, conduit, machinery, apparatus, device or fixture, for any of the following purposes: elevators, swimming pools, air conditioning, heating and oil burners, in any structure which contains 4 or fewer dwelling units, as determined by the applicable building code.

Varies by county/municipality

"Journey worker electrician" means any person who has been licensed by the board as a journey worker electrician to perform electrical work..

"Journey worker industrial electrician" means any person who has been licensed by the board as a journey worker industrial electrician to perform and maintain electrical work related to substation, switchgear, automatic controls, and all other industrial electrical work in existing industrial buildings and work places.

"Journey worker specialty electrician" means any person who has been licensed by the board as a journey worker specialty electrician to perform electrical work related to installing, repairing, altering, and maintaining but not the attachment of lighting and power circuits to, the following: electronic equipment, sound public address systems, and communication systems, other than equipment and systems for a single-family or two-family dwelling; master or community radio and television receiving antenna systems; sound recording systems, other than systems for a single-family or two-family dwelling; burglar and fire alarm systems; low voltage remote control, other than a control for a single-family or two-family dwelling; and low voltage communication signal systems.

Journeyman Electrician. Except as provided in section 54-1016, Idaho Code, and subsections (3), (4), (5) and (6) of this section, any person who personally performs or supervises the actual physical work of installing electrical wiring or equipment to convey electric current, or apparatus to be operated by such current, shall for the purpose of this chapter be known as a journeyman electrician.

Journeyman Electrician as, "A person having the necessary qualifications, training, experience, and technical knowledge to wire for or install electrical wiring, apparatus, and equipment and to supervise apprentice electricians and who is licensed by the board."

"Electrician" means any person licensed by the department who is employed by an electrical contractor and is engaged in the construction, alteration, or repair of any electrical system used for the purpose of furnishing heat, light, or power;

"Journeyman electrician" means a person licensed to make electrical installations in the employment and under the indirect supervision of a licensed master electrician, limited electrician or electrical company.

'Journeyman electrician", a person qualified to do the work of installing, repairing, or maintaining wires, conduits, apparatus, devices, fixtures, or other appliances used for heat, light, power, fire warning or security system purposes.

"Electrical journeyman" means an individual other than an electrical contractor who, as his or her principal occupation, is engaged in the practical installation or alteration of electrical wiring. An electrical contractor or master electrician may also be an electrical journeyman.

"Class A journeyworker electrician" means an individual having the necessary qualifications, training, experience, and technical knowledge to perform and supervise any electrical work except for planning or laying out of electrical work, and who is licensed as a Class A journeyworker electrician by the commissioner.



"Journeyman electrician" means a person having the necessary qualifications, training, experience, and technical knowledge to wire for, install, and repair electrical apparatus and equipment for light, heat, power, and other purposes under the rules governing this work

Journeyman electrician means a person having the necessary qualifications, training, experience, and technical knowledge to wire for or install electrical wiring, apparatus, and equipment and to supervise apprentice electricians and who is licensed by the board;

"Journeyman electrician" means a person doing work of installing electrical wires, conduits, apparatus, fixtures and other electrical equipment. A journeyman electrician shall be employed by a master electrician, except as provided in RSA 319-C:10. Each journeyman electrician shall work under the direction and supervision of a master electrician.

"Qualified journeyman electrician" means a person registered pursuant to P.L.1962, c.162 (C.45:5A-1 et seq.) or P.L.2001, c.21 (C.45:5A-11.1 et al.), as a qualified journeyman electrician by the board. A person shall register as a qualified journeyman electrician in order to engage in the activities set forth in N.J.S.A. 45:5A-18(k), and, if the person is not a licensee, in order to supervise the performance of electrical work pursuant to N.J.A.C. 13:31-3.4.

"journeyman" means an individual who is properly certified by the electrical bureau or the mechanical bureau, as required by law, to engage in or work at the certified trade; Electrical wiring means installation; alteration; connection; maintenance; demolition; or repair of raceways; conduits; conductors; cables; boxes; fittings; wiring devices; luminaires; overcurrent devices; distribution equipment; or other equipment or apparatus that is used as part of, or in connection with, an electrical installation.

"Journeyman electrician" means an individual who has the necessary qualifications, training, and technical knowledge to wire, install, and repair electrical apparatus and equipment and power limited systems in accordance with the standard rules and regulations governing such work

"Journeyman electrician" or "journeyman" means any person, other than a contractor or apprentice, who engages in the installation, repair, maintenance or renovation of electrical facilities according to the Act, in the category in which the person is licensed.

Make any electrical installation under the supervision, direction, and control of a general supervising electrician, unless doing work that requires the direction of a limited supervising electrician or doing work requiring no supervision.

"Journeyman electrician" means a person doing any work of installing wires, conduits, apparatus, fixtures, and other appliances. (a) Except as provided in § 5-6-14, a holder of a Certificate B is not entitled to do any work of installing, maintaining, servicing, and testing wires, conduits, apparatus, fixtures, or other appliances for carrying or using electricity for light, heat, or power purposes except as an employee of a holder of a Certificate A, of a Certificate C, or a Certificate D, or unless the holder of a Certificate B is also registered as an electrical contractor and holds a certificate.

"Journeyman electrician," a person having the necessary qualifications, training, technical knowledge and at least four years' experience in wiring, installing, and repairing electrical apparatus and equipment in accordance with the standard rules established by the State Electrical Commission;

Journeyman Electrician--An individual, licensed as a journeyman electrician, who works under the general supervision of a master electrician, on behalf of an electrical contractor, or employing governmental entity, while performing "Electrical Work" as defined by Texas Occupations Code, §1305.002(11).

A person licensed under this chapter as a journeyman electrician is entitled to perform electrical installations under the direction of a master electrician, and may supervise an apprentice electrician or an electrician's helper employed by a master electrician under the master electrician's direction.

Electrical work" consists of, but is not limited to, the following: (i) planning and layout of details for installation or modifications of electrical apparatus and controls including preparation of sketches showing location of wiring and equipment; (ii) measuring, cutting, bending, threading, assembling, and installing electrical conduits; (iii) performing maintenance on electrical systems and apparatus; (iv) observation of installed systems or apparatus to detect hazards and need for adjustments, relocation, or replacement; and (v) repairing faulty systems or apparatus.

"Electrician" means a tradesman who does electrical work including the construction, repair, maintenance, alteration, or removal of electrical systems in accordance with the National Electrical Code and the Virginia Uniform Statewide Building Code.

"Journeyman" means a person who possesses the necessary ability, proficiency, and qualifications to install, repair, and maintain specific types of materials and equipment utilizing a working knowledge sufficient to comply with the pertinent provisions of the Virginia Uniform Statewide Building Code and according to plans and specifications.

The electrical construction trade includes, but is not limited to, installing and maintaining:

Electrical wires and equipment that are used for light, heat, or power.

Remote control, signaling, power limited, or communication circuits or systems.

Statute: "Journeyman electrician" means a person qualified by at least four years of electrical work experience to do any work installing wires, conduits, apparatus, equipment, fixtures and other appliances, provided that this classification is not authorized to design electrical systems. Rule: "Journeyman Electrician" - means a person qualified by at least four (4) years of electrical work experience to do any work installing wires, conduits, apparatus, equipment, fixtures, and other appliances subject to supervision by a master electrician, and who holds a journeyman electrician's license issued by the West Virginia State Fire Marshal. A journeyman electrician shall have a knowledge and understanding of the National Electric Code as it pertains to the installation of wires, conduits, apparatus, equipment, fixtures and other appliances. A journeyman electrician shall not design any part of an electrical system as defined in § 2.2.12 of this rule.

A journeyman electrician performs electrical work under the supervision of a licensed master electrician or a registered master electrician. A journeyman can also work under the supervision of a licensed residential master electrician if the electrical work is associated with dwellings, dwelling units, or detached building accessories.

"Journeyman electrician" means a person licensed by the department who has four (4) years experience in the electrical wiring industry and technical knowledge to install and supervise the installation of electrical equipment for any purpose in accordance with the National Electrical Code and city, county and state ordinances and regulations;

No level specific scope, only requires that each licensee practice to the level of their training. AND : For the purposes of this part, the term "electrician" means any person who designs, installs, maintains, alters, converts, changes, repairs, removes, or inspects electrical wiring, equipment, conductors, or systems in buildings or structures or on public and private space for the transmission, distribution, or use of electrical energy for power, heat, light, radio, television, signaling, communications, or any other purpose, except elevators, platform lifts, stairway chair lifts, manlifts, conveyors, escalators, dumbwaiters, material lifts, automated people movers, and other related conveyances.

Qualifications

Demonstrate a minimum of 8,000 hours of experience that shows you have the necessary qualifications, training and technical knowledge to install electrical wiring, apparatus or equipment, light, heat or power. Also, that said work is can be completed according to plans and specifications furnished to you and in accordance with standard rules and regulations governing such work. A substantial part of the work you performed must have been commercial, industrial or residential. An applicant for a statewide Journeyman Electrician examination may substitute one year of education in an approved electrical curriculum or apprenticeship program for one thousand hours of electrical experience for a maximum of two thousand hours of the eight thousand hours total required. The applicant must provide appropriate documentation, subject to the approval of the Board, of said education or apprenticeship program.

Requires a minimum of 8000 hours work experience subject to the National Electrical Code. A minimum of 6000 hours must be commercial/industrial. A maximum of 2000 hours may be residential. A maximum of 1000 hours of trade-related classroom training and/or 1000 hours of power lineman experience may be part of the 8000 hours requirement. No maintenance hours will be accepted.

—An applicant for a journeyman electrician license shall have the following qualifications, as appropriate:

1. Applicants who completed an apprenticeship program. Applicants who have completed a 4-year electrical construction apprenticeship program approved by the U. S. Department of Labor, Bureau of Apprenticeship and Training shall have:
 - a. a "Notice of Apprenticeship Committee Action - Released for Test/Completion" form from the applicant's training program and approved by the Arkansas Department of Workforce Education; or
 - b. if the applicant completed an apprenticeship program in another state, certification from the Bureau of Apprenticeship and Training or the state agency responsible for oversight of apprenticeship programs of completion.
 - c. The Board may approve an applicant without a Released for Test form in extenuating circumstances.

—Applicants who have not completed an apprenticeship program. Applicants who have not completed a 4-year electrical construction apprenticeship program approved by the Bureau of Apprenticeship and Training shall have 8 years (16,000 hours) of electrical construction experience or training as may be approved by the Board. This training or experience may include electrical experience gained in the military. See Regulation 010.13-012(1) for experience that does not qualify.

(1) successful completion of an apprenticeship program approved by the California Apprenticeship Council, the federal Bureau of Apprenticeship Training, or a state apprenticeship council authorized by the federal Bureau of Apprenticeship Training to approve apprenticeship programs, in the classification for which certification is sought; or

(2) on-the-job experience, as follows: General Electrician: 8000 hours of work for a C-10 electrical contractor installing, constructing or maintaining electrical systems covered by the National Electrical Code. The 8000 hours must consist of work in two or more of the following areas, and the maximum number of hours in a particular area that may be counted toward the 8000 hour total are as follows:

- Stock room and Material handling - 300 hours
- Residential Wiring - 3000 hours
- Commercial Wiring - 6000 hours
- Industrial Wiring - 6000 hours
- Voice Data and Video installation - 1500 hours
- Underground Conduit installation - 750 hours
- Troubleshooting and Maintenance - 1500 hours
- Finish Work and fixtures - 600 hours
- Fire/Life Safety, Nurse call - 600 hours

Journeyman electrician. (a) An applicant for a journeyman electrician's license shall furnish written evidence that the applicant has had the following:

(I) At least four years' apprenticeship in the electrical trade or four years' practical experience in wiring for, installing, and repairing electrical apparatus and equipment for electric light, heat, and power;

(II) At least two of the applicant's years' experience required by subsection (2)(a)(I) of this section has been in commercial, industrial, or substantially similar work; and

(III) Effective January 1, 2011, during the last four years of training, apprenticeship, or practical experience in wiring for, installing, and repairing electrical apparatus and equipment for electric light, heat, and power, at least two hundred eighty-eight hours of training in safety, the national electrical code and its applications, and any other training required by the board that is provided by an accredited college or university, an established industry training program, or any other provider whose training is conducted in compliance with rules promulgated by the board, in collaboration with established industry training programs and industry representatives.

(b) An applicant shall be permitted to substitute for required practical experience evidence of academic training or practical experience in the electrical field, which shall be credited as follows:

(I) If the applicant is a graduate electrical engineer of an accredited college or university or the graduate of a community college or trade school program approved by the board, the applicant shall receive one year of work experience credit.

(II) If the applicant has academic training, including military training, that does not qualify under subsection (2)(b)(I) of this section, the board shall provide work experience credit for the training or for substantially similar training established by rule.

(c) Any application for a license and notice to the applicant shall be made and given as

The requirement to qualify for this license exam shall be the completion of a registered apprenticeship program or at least four (4) years of equivalent experience and training.

(5) For licensure as a journeyman electrician shall:

a. Be at least 20 years of age.

b. Shall either:

1. Successfully complete an apprenticeship program approved by the Board that includes passing a final exam for successful completion of such program; or

2. Have over 8,000 hours of full-time experience performing electrical work under the supervision of a licensed master electrician, master electrician special, limited electrician or limited electrician special.

c. The exam required for a journeyman license in paragraph (a)(8) of this section shall not be required for any person that has successfully met the requirement of paragraph (a)(5)b.1. of this section.

(1) An individual who holds a valid, active journeyman license in the electrical trade issued by any county or municipality in this state may work as a journeyman in any other county or municipality of this state without taking an additional examination or paying an additional license fee, if he or she:

(a) Has scored at least 70 percent, or after October 1, 1997, at least 75 percent, on a proctored journeyman Block and Associates examination or other proctored examination approved by the board for the electrical trade;

(b) Has completed an apprenticeship program registered with a registration agency defined in 29 C.F.R. s. 29.2 and demonstrates 4 years' verifiable practical experience in the electrical trade, or demonstrates 6 years' verifiable practical experience in the electrical trade;

(c) Has satisfactorily completed specialized and advanced module coursework approved by the Florida Building Commission, as part of the building code training program established in s. 553.841, specific to the discipline, or, pursuant to authorization by the certifying authority, provides proof of completion of such curriculum or coursework within 6 months after such certification; and

(d) Has not had a license suspended or revoked within the last 5 years.

Journey worker electrician: 5 years but not less than 10,000 hours in residential or commercial wiring and satisfactory completion, accepted by a University of Hawaii Community College offering an appropriate program of study, of 240 hours of electrical academic coursework;

Journey worker specialty electrician: 3 years but not less than 6,000 hours in the trade and satisfactory completion, accepted by a University of Hawaii Community College offering an appropriate program of study, of 120 hours of electrical academic coursework.;

Journey worker industrial electrician: 4 years but not less than 8,000 hours in industrial electrical work and satisfactory completion, accepted by a University of Hawaii Community College offering an appropriate program of study, of 200 hours of electrical academic coursework;

- a. An applicant for a journeyman electrician license must have worked as an apprentice electrician making electrical installations for four (4) years, defined as a minimum of eight thousand (8,000) hours under the constant on-the-job supervision of a qualified journeyman electrician and meet the minimum vocational educational requirements of the Idaho Electrical Board and the Idaho State Board for Professional and Technical Education as provided by Section 54-1007, Idaho Code, and Paragraph 012.01.a. of these rules. That work shall include three (3) categories:
- i. Residential; ii. Commercial; and iii. Industrial installations.
- b. Experience shall not exceed seventy-five percent (75%) of the work time in any one (1) category. The requirements of Paragraph 013.01.a. of these rules shall not apply to a registered apprentice enrolled in an apprenticeship program accredited by the Division of Building Safety.
- c. An applicant with out-of-state experience from a state that does not have a current reciprocal agreement with Idaho must meet the experience and vocational education requirements as set forth in Paragraph 013.01.a. of these rules or if the applicant has not completed the vocational education requirement, the applicant may alternately submit verification of twice the amount of experience (eight (8) years defined as a minimum of sixteen thousand (16,000) hours)). That work shall include three (3) categories:
- i. Residential; ii. Commercial; and iii. Industrial installations.
- d. Experience shall not exceed seventy-five percent (75%) of the work time in any one (1) category and must have been legally obtained in the state in which the applicant received his experience.
- e. An applicant from a state that has a current reciprocal agreement with the state of Idaho may be issued a journeyman electrician license without testing in accordance with Section 54-1007, Idaho Code, upon verification that:
- i. The license is current and active and in good standing;
 - ii. The license was obtained by testing from the issuing state;
 - iii. The license has been in effect for a minimum of one (1) year; and

Class A: License was obtained by written supervised Iowa Block, Thomson, Experior, Prometric, PSI, exam prior to October 1, 2008 or Board-approved state examination and is not subject to the restrictions of a Class B license

Class B: License is granted to a journeyman electrician who can present credible evidence of having worked for a total of 16,000 hours of cumulative experience as a journeyman electrician, of which at least 8,000 hours shall have been worked since January 1, 1998 and whose experience as a journeyman or master electrician began on or before January 1, 1998. This license is subject to restrictions by political subdivisions.

six years experience--either four years of work experience and completion of an approved training program (at least 576 hours of classroom training) or an additional two years of work experience.

Complete at least 8,000 hours of service as a licensed apprentice or helper and satisfactorily complete a program of study comprising 576 hours as approved by the Electricians' Examining Board or from an accredited institution. The 576 hours shall consist of 225 hours of required study, including an approved course of not less than 45 hours in the current National Electrical Code; and 351 hours of elective study, comprised of all trade-related electives or 225 hours of trade-related courses and 135 hours of degree-related courses;

Be a graduate of an accredited applied technology high school 2-year electrical program, have worked for 7,000 hours in the field of electrical installations under the supervision of a master or equivalent and have completed a course of not less than 45 hours in the current National Electrical Code;

Be a graduate of a Maine community college electrical program or a vocational-electrical program of the Department of Corrections, have worked for 4,000 hours in the field of electrical installations under the supervision of a master or the equivalent and have completed a course of not less than 45 hours in the current National Electrical Code. Persons qualifying under this paragraph may sit for the journeyman's examination upon graduation; or

Worked at least 8,000 hours as a licensed apprentice electrician in the field of electrical installations under the direct supervision of a master electrician, journeyman electrician or limited electrician, having completed a program of study comprising at least 576 hours prescribed in an apprenticeship program approved by the board and having completed a course of 45 hours in the current National Electrical Code. A licensed apprentice who has completed an approved apprenticeship program of study and has worked at least 4,000 hours as a licensed apprentice electrician is qualified to sit for the examination.

(1) An apprentice applying for a Journeyman electrician license exam shall meet the following eligibility criteria for licensure:

(a) furnish documentary proof satisfactory to the Board of having completed electrical work experience totaling a minimum of 8000 clock hours in no less than four years before making an application for examination.

Such work experience, as an apprentice, shall have been under the direct supervision of a Massachusetts licensed Journeyman electrician in accordance with M.G.L. c. 141, § 8.

(1) Applicants may receive credit for electrical shop experience obtained in a public vocational school program approved by the Department of Elementary and Secondary Education under M.G.L. c. 74, All programs are subject to approval by the Board.

(2) Applicants with systems work experience supervised by a Systems Technician may receive a maximum of 4000 clock hours in not less than 2 years.

(3) Apprentices shall not be given credit for work experience obtained more than twenty years prior to the date of application.

(b) furnish documentary proof satisfactory to the Board of having successfully completed without substantial interruption 600 clock hours of classroom instruction as described in 237 CMR 22.01: 600 Hours of Education Required as a Prerequisite to Sit for Journeyman Examination (as Applicable Modular and Non-modular) and obtained in a public vocational school program approved by the Department of Elementary and Secondary Education under M.G.L. c. 74, a private occupational school program licensed by the Division of Professional Licensure under M.G.L. c. 112, a college/university program, or other trade organization, approved by the Board. For purposes of this requirement, a maximum of 300 hours of education

shall be granted for education completed in a public vocational school program approved by the

Department of Elementary and Secondary Education under M.G.L. c. 74.

(c) furnish documentary proof satisfactory to the Board of having obtained a high school diploma

Have not less than 8,000 hours of practical experience obtained over a period of not less than 4 years related to electrical construction or maintenance of buildings or electrical wiring or equipment under the direct supervision of a person licensed under the Electrical Administrative Act, 1956 PA 217, or the equivalent as determined by the Electrical Administrative Board. Credit may be provided for graduation from or attendance at a recognized training or educational program.

48 months (8,000 hrs) with at least 2 yrs electrical installation



1. Education Requirements: Completion of an approved inside wireman apprenticeship program in the electrical trade or completion of an appropriate training program conducted by a bona fide union or trade association. [37-68-305, MCA] Or;
2. Experience Requirements: Apply by one of the following on a form prescribed by the board:
 - a. A third party verification of (8,000) hours of legally obtained practical experience in wiring for, installing, and repairing of electrical apparatus and equipment for light, heat, and power in residential construction consisting of less than five living units in a single structure. [37-68-305, MCA] Or;
 - b. Worked in the electrical maintenance field for at least (20,000) hours, accompanied by written certification by the applicant's employer that the applicant has attained at least (20,000) hours in the electrical maintenance field while working for the employer. A minimum of (8,000) of these hours must be practical experience. [37-68-305, MCA]

have at least four years' experience, acceptable to the board, in the electrical trade. Registration as an apprentice electrician for those years shall, on the approval of the board, constitute evidence of such experience.

- (1) Obtain 8000 hours practical or field experience as an apprentice to a journeyman or master electrician licensed by the board; and
- (2) At least one of the following:
 - a. Obtain 600 hours of electrical schooling, including a minimum of 24 hours on electrical safety, either:
 1. Accomplished in blocks of 150 hours per year, including a minimum of 6 hours on electrical safety; or
 2. By having an associate or higher degree in an electrical curriculum;
 - b. Have 10 years of experience as a journeyman or master electrician licensed in another jurisdiction; or
 - c. Have previously taken the journeyman or master exam in NH.

Has acquired 8,000 hours of practical experience working with tools in the installation, alteration or repair of wiring for electric light, heat or power, which work shall have been done in compliance with the National Electrical Code, and who has had a minimum of 576 classroom hours of related instruction. The requirement of practical experience shall not include time spent in supervising, engineering, estimating and other managerial tasks. At least 4,000 hours of the practical experience shall have been obtained within five years of the date of application

A person is eligible to take an examination for a journeyman electrician certificate of competence after at least:

- (1) four years of accredited training in the electrical trade;
- (2) four years of apprenticeship in the electrical trade;
- (3) four years of practical experience in the electrical trade, of which two years are in the commercial trade, industrial trade or the equivalent as determined by the commission; or
- (4) successfully completing an electrical trade program approved by the vocational education division of the state department of public education and two years of practical experience in the commercial electrical trade

An applicant for an electrician's license must have the following experience and training:

1. For licensure as a master electrician, an applicant must have completed one year's experience as a licensed journeyman electrician.
2. For licensure as a journeyman electrician, an applicant must have:
 - a. Completed eight thousand hours' experience in installing and repairing electrical wiring, apparatus, and equipment, which experience may not be obtained in less than three years.
 - b. Effective for an applicant who registered with the board as an apprentice after January 31, 2008, completed at least one of the following:
 - (1) Successfully completed apprenticeship training approved by the board and completed eight thousand hours' experience in installing and repairing electrical wiring, apparatus, and equipment.
 - (2) Successfully completed an appropriate course of study, which may not be less than two years or the equivalent of two years, at a board-approved institution of higher education and completed eight thousand hours experience in installing and repairing electrical wiring, apparatus, and equipment. The board may determine equivalent hours of education that may be applied as a credit against the eight thousand hours' experience requirement under this paragraph.
3. For licensure as a class B electrician, eighteen months' experience in farmstead or residential wiring.
4. For licensure as a power limited electrician:
 - a. Hold a valid board-recognized tradesman certification; or

verify eight thousand (8,000) hours (4 years) on-the-job experience in the electrical construction trade, as defined in 90.2 National Electrical Code, under the supervision of a journeyman or contractor. Experience must be obtained while employed by a licensed electrical contractor. Four Thousand (4,000) of the hours of experience must be verified in commercial/industrial work. No more than two thousand (2,000) of verified actual classroom hours of formal electrical education may be counted toward the experience requirement.

Completion of an approved apprenticeship program in Oregon; OR
Official transcripts verifying 576 hours of classroom training and verification of 8,000 hours of on-the-job experience obtained outside of Oregon. Experience must include a breakdown of hours, showing a minimum of 1,000 hours in each category: residential, commercial, and industrial (300 percent rule applies); OAR 918-282-0170.

require verification of at least four (4) years experience in their respective trade and 576 hours of related instruction approved by the Department of Labor and Training

complete four years (for a total of 8,000 hours) as an apprentice working under an electrical contractor

An applicant for a license as a journeyman electrician must:

(1) have at least 8,000 hours of on-the-job training under the supervision of a master electrician;

Complete an approved Vermont Apprentice program, or show documentation of 12,000 hrs of experience

One of the following:

Four years of practical experience in the trade and 240 hours of formal vocational training in the trade.

Five years of practical experience in the trade and 160 hours of formal vocational training in the trade.

Six years of practical experience in the trade and 80 hours of formal vocational training in the trade.

Seven or more years of practical experience in the trade and 40 hours of formal vocational training in the trade.

Associates degree or certificate of completion from at least a two-year program in a tradesman related field from

Bachelor's degree or certificate of completion from an accredited college or university in an engineering

curriculum related to the trade and one year of practical experience in the trade for which licensure is requested.

Ten years of practical experience in the trade as verified by individuals who have observed the applicant's work in the trade.

A general journey level electrician (EL01) is certified to work in commercial/industrial and all specialty electrical categories.

At least 8,000 hours working as an electrical trainee under the supervision of a certified journey level electrician. At least 4,000 hours must be spent working in commercial or industrial installations.

96 hours of basic classroom instruction.

To apply for a 'Journeyman electrician's license', a person must:

- (1) have at least four years of experience as an apprentice electrician in performing electrical work under the direction or instruction of a master electrician;
- (2) have completed a United States Department of Labor/Bureau of Apprenticeship and training registered electrical apprenticeship program,; or
- (3) have completed an electrical vocational education program of at least one thousand eighty hours in length approved by the WV Board of Education which should include an on-the-job training/work hours module, successfully passed a written and practical testing required by the WV Department of Education, and obtained an affidavit showing competency to sit for the journeyman electrician examination from the program instructor.

(1) An applicant for licensure as a journeyman electrician shall have at least one of the following qualifications:

(a) Completion of a construction electrician apprenticeship program in installing, repairing, and maintaining electrical wiring that has a duration of at least 3 years and that is approved by the U.S. department of labor or by the department of workforce development, followed by passage of an examination required by the department.

(b) Experience in installing, repairing, and maintaining electrical wiring during a period of not less than 48 months, with at least 8,000 hours of experience over that period, followed by passage of an examination required by the department.

(2m) For purposes of meeting the requirement relating to experience under sub. (1) (b), a degree or diploma from a 2-year program in a school of electrical engineering or from a 2-year program in an accredited technical or vocational school in an electrical-related program shall be accepted by the department as being equivalent to 12 months and 2,000 hours of experience.

An applicant for a journeyman electrician license by exam must present evidence of a four (4) year (8,000 hour) apprenticeship or experience in the electrical wiring industry. The 8,000 hours of experience must have been obtained during a time frame of no less than four (4) years. Work shall have been governed by the minimum standards of the NEC, under the direct supervision of a licensed journeyman or licensed master electrician. Electrical work experience is to consist of installation in residential, commercial, and industrial. No more than 75 percent of time may be in any one category. However, in special circumstances, the Board may waive this requirement. Up to two (2) years (4,000 hours) credit toward work history requirements shall be given for the number of hours of study in an accredited electrical school exceeding the 576 hours of electrically related classroom instruction required in Section 5(a)(i).

(i) An applicant for a journeyman electrician or master electrician license must also present evidence of 144 hours per year, or 576 hours over a four year apprenticeship, of successfully completed electrically related classroom instruction obtained through approved electrical apprenticeship training programs.

An applicant for licensure as a journeyman electrician or a master electrician limited (low voltage) shall establish to the satisfaction of the Board of Industrial Trades that he or she has satisfactorily completed a class on Title 12C of the District of Columbia Municipal Regulations or equivalent code within 2 years prior to submittal of the application and has:

(1) Worked as an apprentice electrician for at least 8,000 hours over at least 4 years;

(2) Graduated from an accredited college or university with a degree in electrical engineering, and has at least 2 years of practical experience in electrical work, which has been certified by a licensed master electrician; or

(3) Has comparable experience or a combination of education and experience that the Board deems equivalent to the above; and

(4) Has supplied any additional evidence as the Board determines is necessary for the particular specialty license sought by the applicant.

No info online, if requested, contact the Director of DOC listed on the website.

Exams

Written Alabama Electrical Journeyman exam

<http://www.aecb.state.al.us/pdf/2020/CIB2020.05.19.pdf> 80 questions

Subject Area # Quest.

Conductors and Cables 10

Electrical Power 2

Fire Detection and Alarm Systems 2

General Electrical Knowledge 10

Grounding and Bonding 8

Illuminated Signs 2

Lighting 3

Low Voltage 2

Motors 6

Overcurrent Protection 5

Raceways and Boxes 10

Safety Information 5

Service, Feeders, and Branch Circuits 9

Special Occupancies and Equipment 6

AK Mechanical Inspection Exam. There is a four (4) hour maximum time limit on all exams. A score of at least 70 percent is required for passing. Exam is based on NEC 2017 and is open book.

Number of Questions 60; Reference: NFPA 70, NEC 2017
Time allowed (hours) 3
Subject Area # Quest.
Grounding and Bonding 6
General Knowledge of the Electrical Trade and
Calculations 9
Service, Feeders, Branch Feeders and
Overcurrent Protection 8
Raceways and Enclosures 8
Conductors 7
Motors and Controls 7
Utilization and General Use Equipment 6
Special Occupancies and Equipment 4
Low Voltage Circuits, Including Alarms and Communications 2
Safety 3

100 questions
Subject Area --% Per Area
Safety-- 6
Determination of Electrical System Requirements -- 22
Installation -- 66
Maintenance and Repair -- 6

Exam information is vague in statute and rule; however, the following is taken from the Exam CIB: Journeyman Wireman

90 Scored Items - 240 Minutes

70% (63 Items) Correct to Pass

Up to 10 Non-Scored Items - 30 Minutes

Examination Content Area # of Items

General Electrical Knowledge 11

Services, Feeders, and Branch Circuits 9

Grounding and Bonding 14

Overcurrent Protection 6

Conductors and Cables 9

Raceways and Boxes 5

Special Occupancies 5

Special Equipment 5

Electrical Devices 5

Motors 6

Transformers 4

Photovoltaics 2

Electrical Calculations 9

State Business Law and Rule, and Trade exam:

of Questions % Required to Pass Time Allowed

80 70% 3.5 hours

CONTENT OUTLINE

Subject Area # of Items

General Electrical Knowledge 7

Service, Feeders, and Branch Circuits 7

Grounding and Bonding 6

Conductors and Cables 7

Raceways and Boxes 8

Special Occupancies and Equipment 5

Electrical Power 4

Motors 5

Low Voltage 2

Lighting 3

Illuminated Signs 2

Fire Detection and Alarm Systems 5

Safety Information 5

Overcurrent Protection 6

High Voltage 2

Photovoltaics 6

Electrical examinations will be based on the 2014 National Electrical Code (NEC). You must obtain a minimum score of 75% to pass the exam.

Varies by county/municipality

The Electricians exam is based on the National Electrical Code (NEC)

Pass rate: 70% Open Book, based on Current Idaho Electrical Statutes and Rules and 2017 NEC NFPA)

Blue Print: (Topic/Questions)

Intro/ 2

Chapter 1/ 5

Chapter 2 / 18

Chapter 3 / 18

Chapter 4 / 17

Chapter 5 / 13

Chapter 6 / 5

Chapter 7 / 2

Chapter 8 / 1

Chapter 9 / 5

Calculations /8

Statute & Rules /6

TOTAL 100

80 Scored Items - 180 Minutes - 75% Correct to Pass; Ref Allowed: NFPA 70, Ugly's Elect Ref.

8 Non-Scored Items - 30 Minutes

Examination Content Area Percent

General Electrical Knowledge 13

Wiring and Protection 25

Wiring Methods and Materials 19

Equipment for General Use 19

Special Occupancies 13

Special Equipment 6

Special Conditions 6

Even though each county issues their own licenses, ICC provides the "Kansas Standard Exam" See: https://www.iccsafe.org/wp-content/uploads/CO_KS.pdf

ICC: Content Area % of Total

General Knowledge 6% Services and Service Equipment 11% Ugly's Electrical Reference (any edition)

Feeders 4%

Branch Circuits and Conductors 19%

Wiring Methods and Materials 26%

Equipment and Devices 13%

Control Devices 4%

Motors and Generators 6%

Special Occupancies, Equipment, and Conditions 11%

Total 100% Approved References 2017 National Electrical Code

Number of Questions 80, NFPA 70 NEC 2017 permitted

Time allowed (hours) 3

Subject Area # Quest.

General Electrical Theory & Principles 10

Wiring & Protection 16

Wiring Methods & Materials 16

Motors & Controls 10

Equipment for General Use 10

Special Occupancies 5

Special Equipment 5

Special Conditions 5

Communication Systems 3

Trade Content Outline

Subject Area # of Items

General Knowledge 8

Services 11

Grounding and Bonding 7

Wiring Methods and Devices 18

Motors 4

Transformers 1

Low-Voltage Distribution 2

Special Occupancies and Equipment 5

Overcurrent Protection 6

Lighting 2

Alarm Systems 6

Applied Portion Content Outline

Subject Area # of Items

Circuit Calculations (Ohm's Law) 5

Electrical Schematics and Plans 5

Materials and Components 6

Troubleshooting and Testing 6

Massachusetts Amendments 6

Licensing Laws and Regulations 2

The Journey examination covers entry-level knowledge of the electrical industry as outlined in all the categories listed below. You are allowed 2 ½ hours to complete the examination which consists of 80 questions.

EXAMINATION CATEGORIES:

General knowledge of the electrical trade, including terminology and the ability to make practical calculations.

The determination of system and circuit grounding and design and use requirements for grounding, including choosing proper size grounding conductors.

Knowledge of circuit classifications and ratings and design and use requirements for circuits, including branch circuit loads.

The determination of ampacity, type of insulation, usage requirements, methods of installation, protection, support, and termination.

Knowledge of the installation of motors and control circuits.

The calculation of electrical loads and determination of proper size, rating, and type of service and feeder conductors.

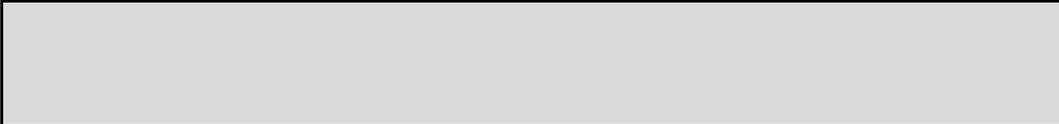
Knowledge of fuses, circuit breakers, and all types of protective devices for conductors and equipment.

Knowledge of all types of raceways and their uses, including determining proper size, conductor fill, support, and methods of installation.

Knowledge of circuits and equipment characterized by usage and electrical power limitations, including differentiating them from electric light and power circuits.

Knowledge of all types and applications of lighting fixtures, ratings, requirements for occupancies, special provisions, and clearances.

~~Knowledge of state laws, rules and code amendments to include the~~
each applicant must pass a written or oral (with ADA request) examination developed and administered by the commissioner to ensure the competence of each applicant for license.



Pass a written examination given by the board to insure his or her competence. Such examination shall contain reasonable questions based upon the then current National Electrical Code and upon electrical theory. When answering questions based upon the National Electrical Code, the applicant may refer to an open copy of such code. State electrical examinations shall consist of a minimum of 50 questions. The examinations shall consist of National Electrical Code, Basic Electricity, Nebraska State Electrical Act, Blueprint Reading, Emergency Circuits and Fire Alarm Circuits. The minimum grade considered as passing shall be 75 percent.

Pass a written examination given by the board to insure his or her competence. Such examination shall contain reasonable questions based upon the then current National Electrical Code and upon electrical theory. When answering questions based upon the National Electrical Code, the applicant may refer to an open copy of such code. State electrical examinations shall consist of a minimum of 50 questions. The examinations shall consist of National Electrical Code, Basic Electricity, Nebraska State Electrical Act, Blueprint Reading, Emergency Circuits and Fire Alarm Circuits. The minimum grade considered as passing shall be 75 percent.

The journeyman examination shall consist of 110 questions, as follows:

- (1) Fifty questions based upon the National Electrical Code as described in (a) or (b) above;
- (2) Fifty questions based upon practical electrical installations as defined in RSA 319-C:2, III; and
- (3) Ten questions based upon RSA 319-C and the administrative rules.

No Exam, unless applying for a contractor license

The exam is split into two parts: Code Examination and Theory Examination. The test will cover:

- Electrical Installation Requirements
- Services, Feeders, and Branch Circuits
- Overcurrent Protection
- Grounding and Bonding
- Conductors and Cables
- Raceways and Boxes
- Hazardous Locations, Special Occupancies, and Special Equipment
- Lighting, Signs, and General-Use Equipment
- Motors, Transformers, and Generators
- NM State Code

The board shall examine an applicant for licensure and if, upon a technical and practical examination, the applicant is found to possess the required knowledge and skill and to be versed in the laws of electricity, the applicant shall be issued a license in the class for which the applicant was examined. The examinations will be based on fundamental electricity, Laws, Rules, and Wiring Standards of North Dakota and the current edition of the National Electrical Code.

Electrical license examinations may include, without limitation, the following parts:

- (1) Written questions, consisting of open book, closed book and problems, based on the standard of installation as described in OAC 158:40-1-4 and other related questions; and
- (2) Practical shop, which for contractors shall also include written questions on job estimating and the laws and regulations relating to electricians as found in the Act and this Chapter.

3 hour 52 question open book exam, see:
<https://www.oregon.gov/bcd/licensing/Documents/exams/el-approved-exam-materials.pdf>

All examinations shall be conducted and completed in writing and may include written and/or practical demonstrations, and the provisions shall be based the edition of the National Electrical Code adopted by the Rhode Island State Building Code Standards Committee at the time of the examination

ICC: Content Area % of Total Approved References

General Knowledge 6% 2017 National Electrical Code

Services and Service Equipment 11% Ugly's Electrical Reference (any edition)

Feeders 4%

Branch Circuits and Conductors 19%

Wiring Methods and Materials 26%

Equipment and Devices 13%

Control Devices 4%

Motors and Generators 6%

Special Occupancies, Equipment, and Conditions 11%

Total 100%

CONTENT OUTLINE

Subject Area # of Items

Definitions, Calculations, Theory, and Plans 6

Electrical Services, Service Equipment, and Separately Derived Systems 9

Electrical Feeders 3

Branch Circuit Calculations and Conductors 15

Electrical Wiring Methods and Electrical Materials 18

Electrical Equipment and Devices 10

Motors and Generators 5

Electrical Control Devices and Disconnecting Means 3

Special Occupancies, Equipment, and Conditions 9

Renewable Energy Technologies 2

Examinations shall be conducted in writing and shall include a practical skills examination. The examination shall cover theoretical and practical aspects of electrical work, together with pertinent laws and rules. In addition, the master electrician's examination shall contain questions on the installation of lightning rods, fire alarms, and fire detection systems.

210 Minutes to complete this portion.

- A. Standards of Practice (3 Items)
- B. Standards of Conduct (2 Items)
- C. Renewal and Reinstatement (2 Items)
- D. Definitions (1 Item)
- E. Qualification for Licensure (1 Item)
- F. Revocation of Licensure (1 Item)
- G. General Electrical Knowledge (3 Items)
- H. Requirements for Electrical Installations (3 Items)
- I. Electrical-Electronic Fundamentals (2 Items)
- J. Services, Feeders, and Branch Circuits (7 Items)
- K. Service and Feeder Requirements (2 Items)
- L. Grounding and Bonding (7 Items)
- M. Conductors and Cables (7 Items)
- N. Raceways and Boxes (8 Items)
- O. Special Occupancies (3 Items)
- P. Special Equipment (2 Items)
- Q. Electrical Signs and Outline Lighting (1 Item)
- R. Motors and Controls (5 Items)
- S. Utilization Equipment (5 Items)
- T. Lighting (2 Items)
- U. General Low Voltage Requirements (1 Item)
- V. Communication Systems (1 Item)
- W. Fire Detection and Alarm Systems (1 Item)

4 hrs, divided into two sections (NEC/Theory 3; WA Codes: 1)Time

Allowed per Section (hours) 3 1

Knowledge Area/Questions

NEC 90 – Introduction 1

NEC 100-110 – General Requirements 3

NEC 200-225, 280-285 – Wiring &
Protection 3

NEC 230 – Services 4

NEC 240 – Overcurrent Protection 6

NEC 250 – Grounding & Bonding 6

NEC 300-398 – Wiring Methods 10

NEC 400-427, 455-480 – Electrical Equipment 3

NEC 430-450 – Motors, HVAC, Generators & Transformers 3

NEC 490 – Equipment > 600 volts 1

NEC 500-516 – Hazardous Locations 2

NEC 517-590 – Special Occupancies 4

NEC 600-695 – Special Equipment 3

NEC 700-702 – Emergency & Standby Systems 2

NEC 705-780 – Special Conditions 1

NEC 800-830 – Communication Systems 1

Washington Laws & Rules (RCW & WAC) 17

Major Load Calculations

General Trade Knowledge & Theory 7

Total Questions

60

17

WV State Fire Marshal Exam: All examinations will be derived from the National Electrical Code published by the National Fire Protection Association. Each examination for each class of license will be appropriate in subject matter, difficulty and depth of understanding.

Passing Grade - a passing grade of at least eighty percent (80%) on any test is required to permit the State Fire Marshal to issue an electrician license to any applicant.

"Open book test, and pass is a score of at least 70% in order to be eligible for licensure. The exam will cover:

Wisconsin Administrative Code SPS 305
Wisconsin Administrative Code SPS 316
National Electrical Code (NEC)"

ICC: Content Area % of Total General Knowledge 6% 2017 Services and Service Equipment 11% Feeders 4%
Branch Circuits and Conductors 19%
Wiring Methods and Materials 26%
Equipment and Devices 13%
Control Devices 4%
Motors and Generators 6%
Special Occupancies, Equipment, and Conditions 11%
Total 100% Approved References National Electrical Code Ugly's Electrical References

*Exam Reference Materials (OPEN BOOK)
• National Electrical Code, 2012
• Ugly's Electrical Reference

Special Notes

Also issues a Lineman Journeyman, qualifications are: Requires a minimum of 8000 hours work experience subject to the National Electrical Safety Code. Up to 1000 trade-related classroom hours and/or up to 1000 hours of experience as an electrician may be substituted to meet the work experience requirement. The Exam is based on Lineman and Cableman's Handbook (13th) and NEC, and is closed book.

Also licenses Industrial Maintenance Electricians: An applicant for an industrial maintenance electrician's license shall have:

1. four (4) years experience under the supervision of an engineer, master electrician, journeyman electrician or industrial maintenance electrician in the maintenance of electrical conductors and equipment; or
2. any combination of training and experience as the Board may approve, such as formal apprenticeship programs approved by the Board, on-the-job training specifically approved by the Board, public or private electrical training programs, such as those conducted by the armed forces, colleges, or vocational-technical schools, specifically approved by the Board, or a combination of training and electrical maintenance experience that is determined by the Board to be equivalent to that as specified in paragraph 010.13-012(0)(1) above.

https://candidate.psiexams.com/bulletin/display_bulletin.jsp?ro=yes&actionname=83&bulletinid=343&bulletinurl=.pdf

Additional breakdown for hours can be found in rule, if needed.

<https://www.sos.state.co.us/CCR/DisplayRule.do?action=ruleinfo&ruleId=2214&deptID=18&agencyID=113&deptName=Department%20of%20Regulatory%20Agencies&agencyName=Division%20of%20Professions%20and%20Occupations%20-%20State%20Electrical%20Board&seriesNum=3%20CCR%20710-1>

Note: A C-5/C-6 are low voltage, alarm, or signal work, audio and sound systems, and telephone-interconnect. L-1/L-2 are line construction of high-voltage systems (2800 volts). T-1/t-2 are limited to telephone-interconnect systems where work commences at an outlet receptacle or connection previously installed by a person holding the proper electrical license.

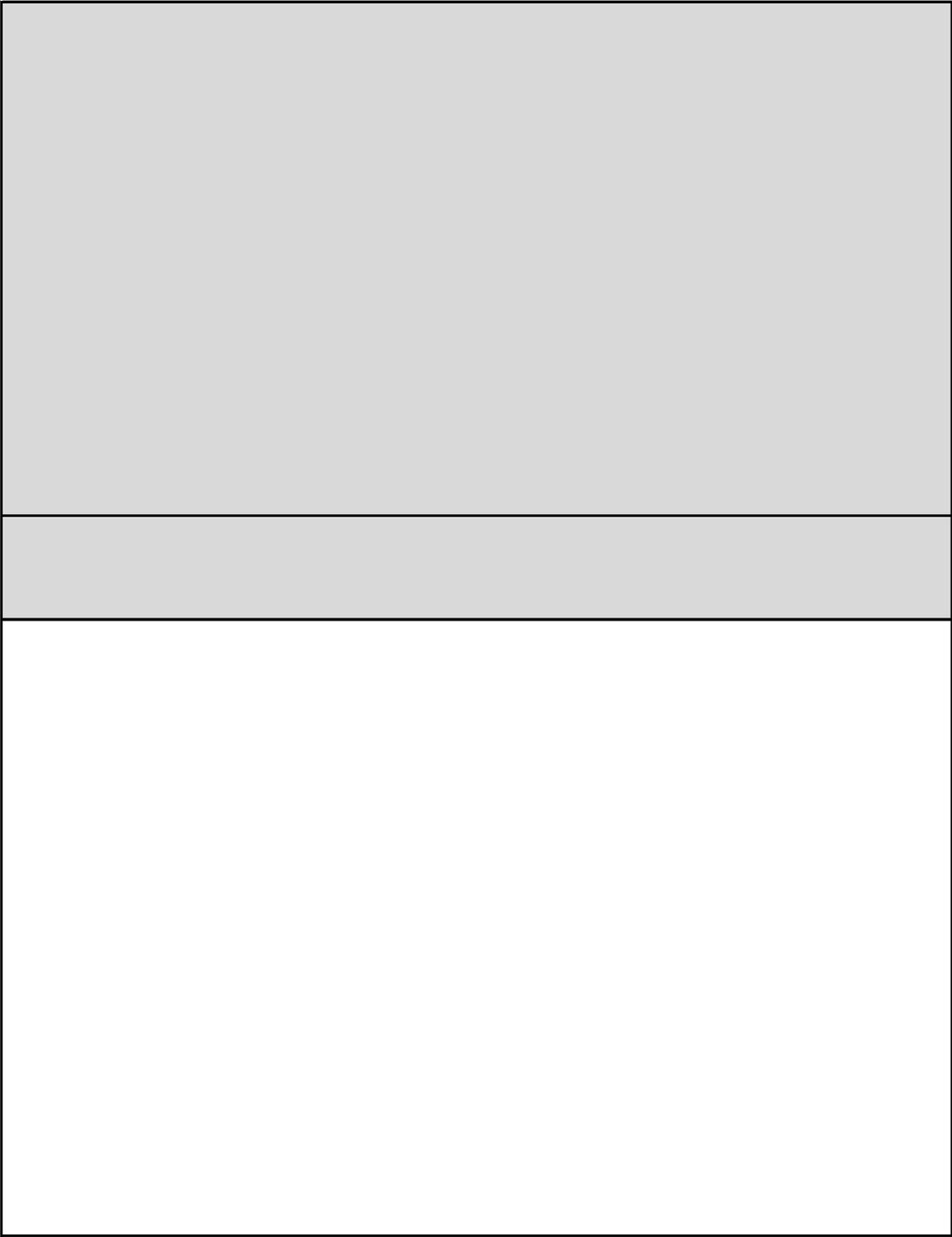
Exam CIB:

https://candidate.psiexams.com/bulletin/display_bulletin.jsp?ro=yes&actionname=83&bulletinid=56&bulletinurl=.pdf

Limited Electrician Special license in one of these specialty areas:

HVAC

Pools



Limited Electrical Installer. An applicant for a limited electrical installer license must have at least two (2) years of experience, or more as specified for the individual category, with the type of installation for which the license is being applied for, in compliance with the requirements of the state in which the experience was received, or as a limited electrical installer trainee making electrical installations in accordance with the requirements as stated herein.

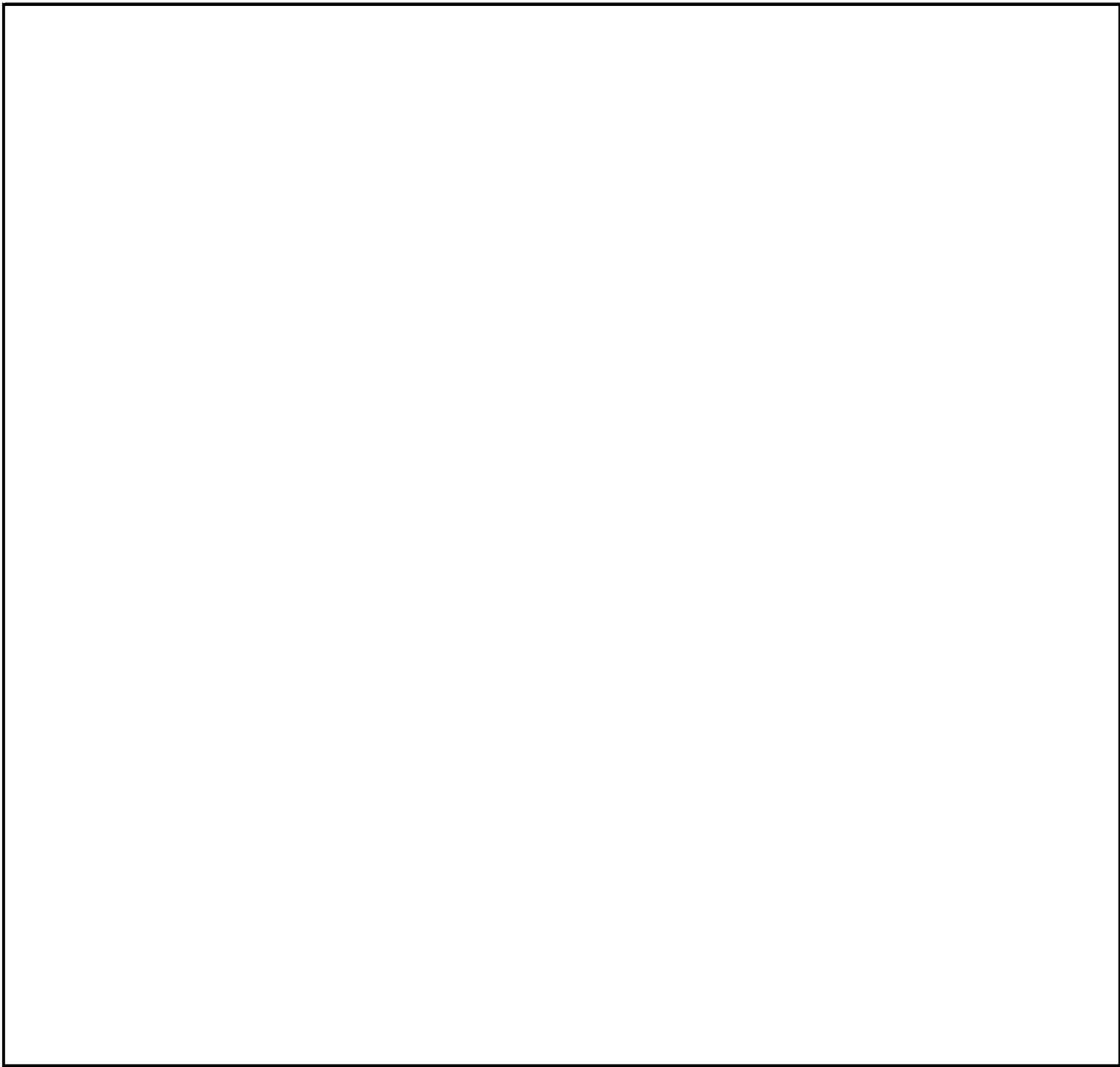
Special Electrician: Persons having the necessary qualifications, training and experience in wiring or installing of special classes of electrical wiring, apparatus, equipment, or installations which shall include irrigation system wiring, disconnecting and reconnecting of existing air conditioning and refrigeration equipment, and sign installations

Exam CIB:

https://candidate.psiexams.com/bulletin/display_bulletin.jsp?ro=yes&actionname=83&bulletinid=578&bulletinurl=.pdf

[Exam CIB: https://www.iccsafe.org/wp-content/uploads/CO_KY.pdf](https://www.iccsafe.org/wp-content/uploads/CO_KY.pdf)

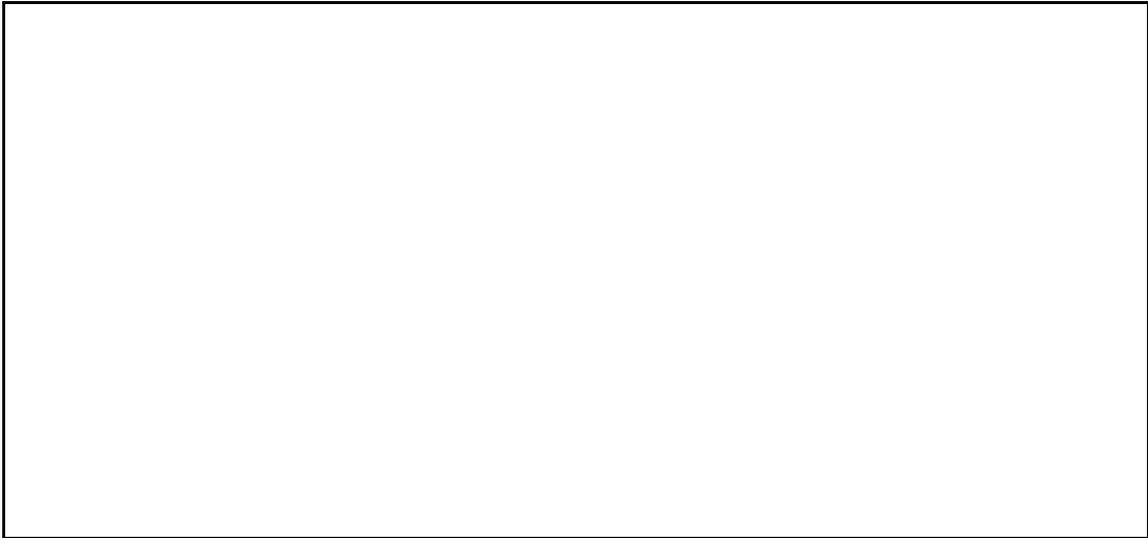
A Limited Electrician is an individual doing work to install and service the electrical work related to a specific type of electrically operated equipment or to specific electrical installations only authorized by this license. Limited licenses are issued for the following categories: Low Energy, Gas Dispense, House Wiring, Outdoor Signs, Refrigeration, Traffic Signals, Water Pumps, and Crane Technicians.





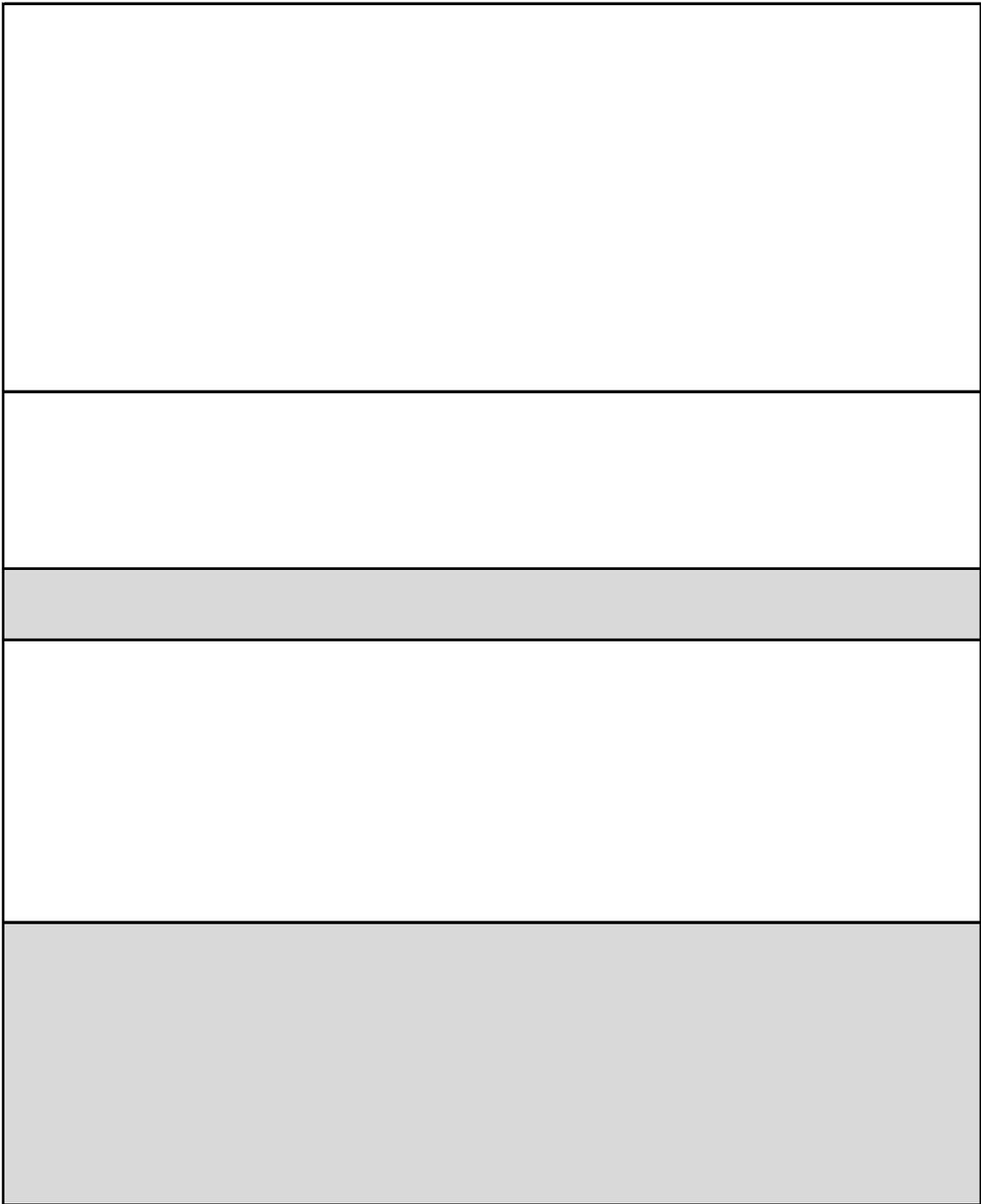
[A complete breakdown of hrs can be found:
https://www.dli.mn.gov/workers/electrician-or-electrical-installer/electrical-license-experience-and-education](https://www.dli.mn.gov/workers/electrician-or-electrical-installer/electrical-license-experience-and-education)



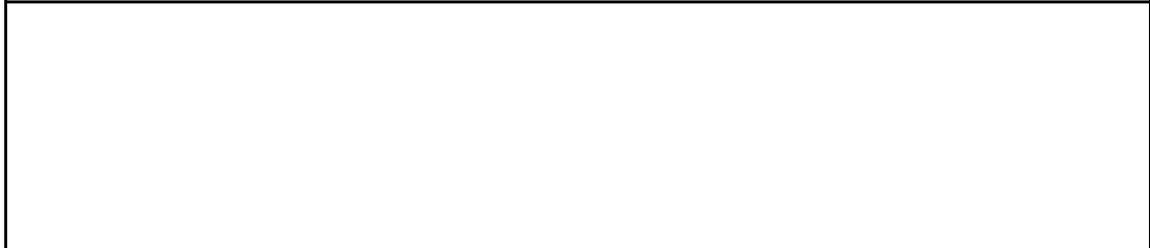
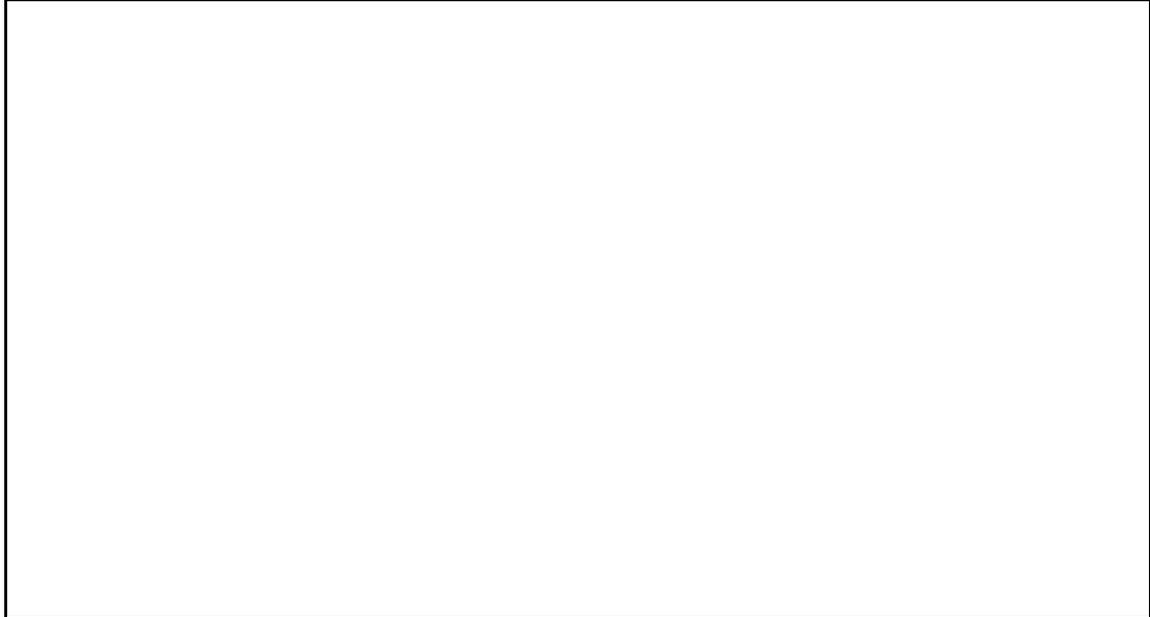


Lists Reciprocal info here: <https://www.ndseb.com/licensing/reciprocal-license-agreements/>





"Class B electrician," a person having the necessary qualifications, training, technical knowledge and at least thirty-six months' experience in wiring, installing and repairing electrical apparatus and equipment in accordance with the standard rules established by the State Electrical Commission;





CIB: <https://lni.wa.gov/licensing-permits/docs/candidate%20information%20bulletin.pdf>

Header bar (shaded gray)

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Small empty rectangular box

Lined writing area with horizontal gray lines

Website

<http://www.aecb.state.al.us/default.aspx>

<https://labor.alaska.gov/lss/mihome.htm> and
<https://www.commerce.alaska.gov/web/cbpl/ProfessionalLicensing/ElectricalAdministrators.aspx>

<http://labor.publishpath.com/electrical-inspection-and-licensing>

<https://www.dir.ca.gov/dlse/ECU/ElectricalTrade.html>

<https://dpo.colorado.gov/Electrical/Laws>

<https://portal.ct.gov/DCP/Occupational-and-Professional-Division/Occupational--Profess/Electrical-License-Types-and-Scope-of-Work>

<https://dpr.delaware.gov/boards/electrician/>

<http://www.myfloridalicense.com/DBPR/electrical-contractors/faqs/#1488479371253-872f97e5-2e03>

<https://cca.hawaii.gov/pvl/boards/electrician/>

<https://dbs.idaho.gov/licenses/electrical-licenses.html>

<https://dps.iowa.gov/divisions/state-fire-marshal/electrical-examining-board>

<http://dhbc.ky.gov/ed/ei/el/Pages/FAQ's.aspx>

<https://www.maine.gov/pfr/professionallicensing/professions/electricians/index.html>

<https://www.mass.gov/policies-regulations-and-statutes-examiners-of-electricians>

https://www.michigan.gov/lara/0,4601,7-154-89334_10575_17394_77372-42954--_00.html

<http://boards.bsd.dli.mt.gov/ele>

<https://electrical.nebraska.gov/>

<https://www.oplc.nh.gov/electricians/licensing.htm>

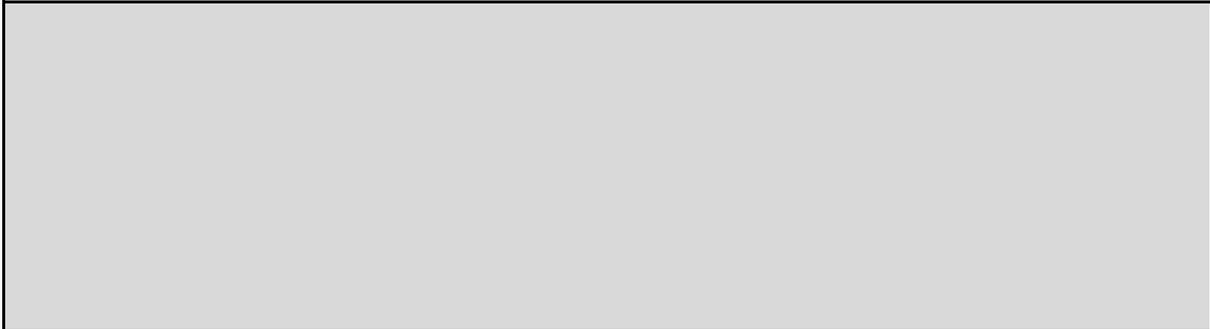
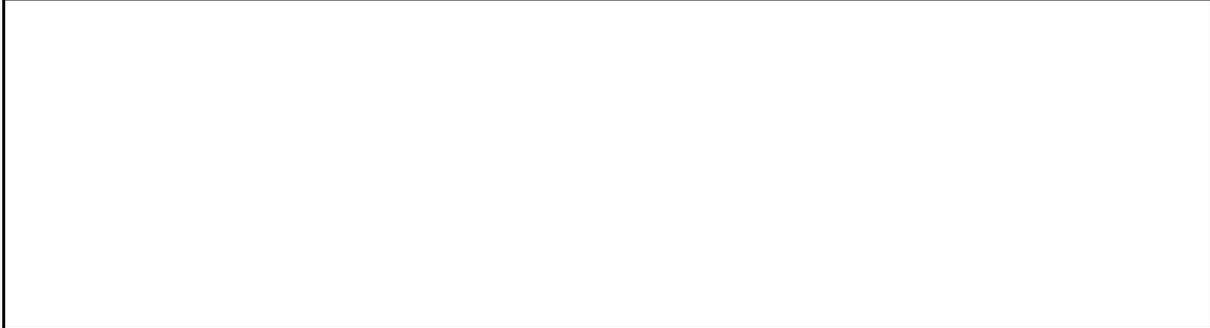
<https://www.njconsumeraffairs.gov/elec>

<http://www.rld.state.nm.us/construction/electrical.aspx>

<https://www.ndseb.com/>

<http://cib.ok.gov/electrical>

<https://www.oregon.gov/bcd/licensing/Pages/individual-licenses.aspx>



https://www.tdlr.texas.gov/electricians/elec.htm	
https://firesafety.vermont.gov/licensing/electrical	

<http://www.dpor.virginia.gov/Boards/Tradesmen/>

<https://lni.wa.gov/licensing-permits/electrical/electrical-licensing-exams-education/>

<https://firemarshal.wv.gov/Pages/default.aspx>

<https://dsps.wi.gov/Pages/Professions/JourneymanElectrician/Default.aspx>

<http://wsfm.wyo.gov/electrical-safety/license-and-exam-applications>

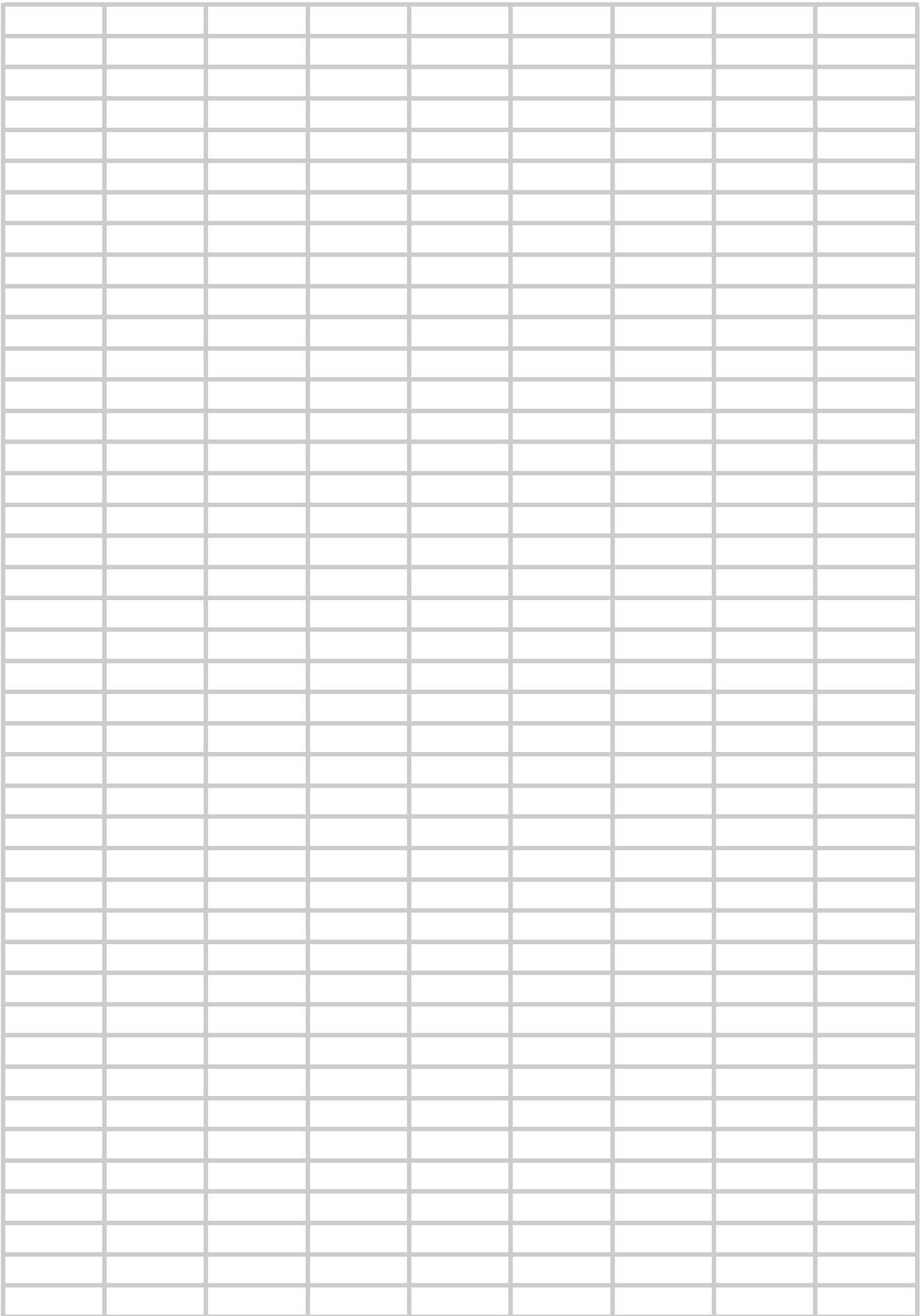
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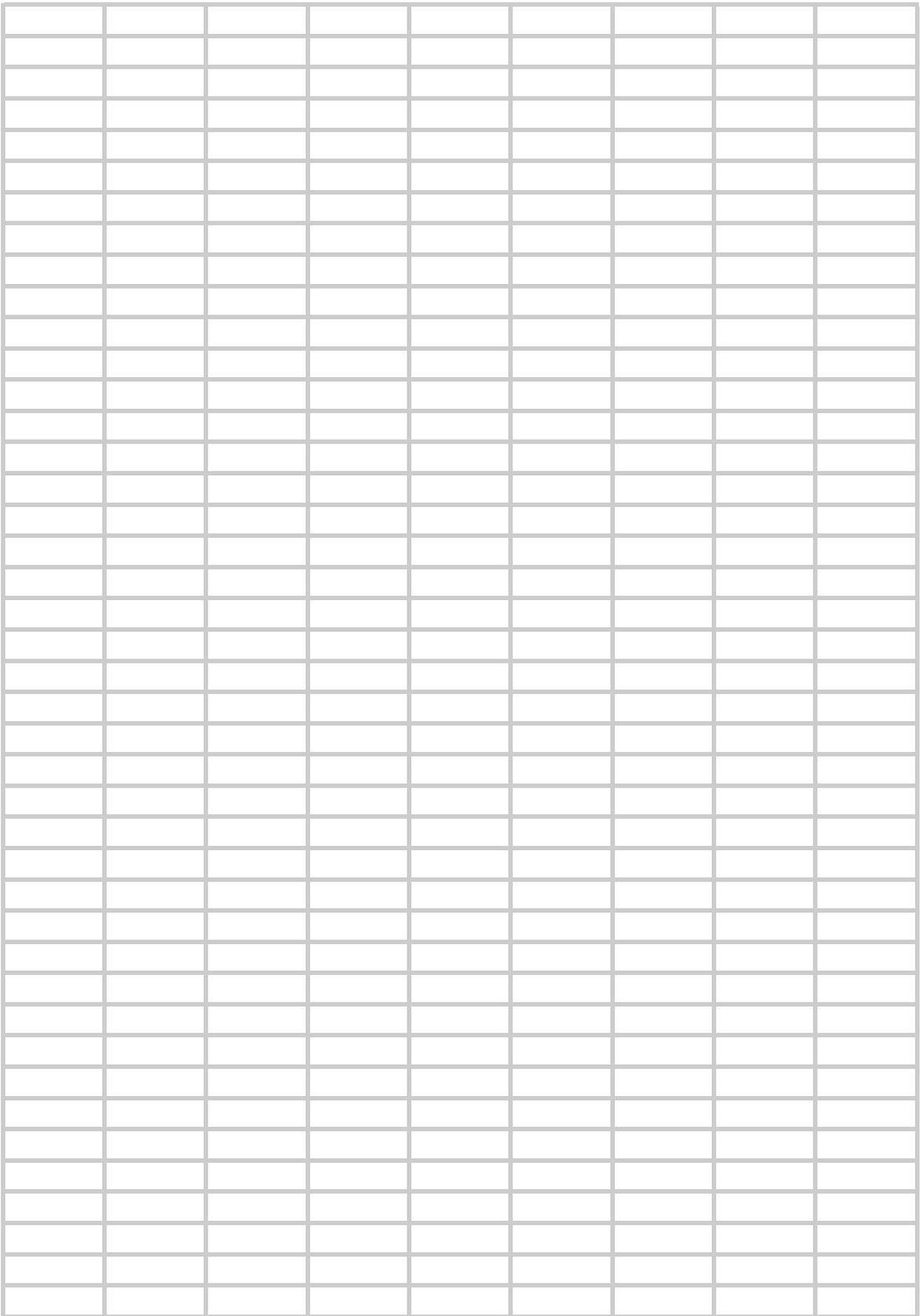
<https://www.americansamoa.gov/department-of-commerce>

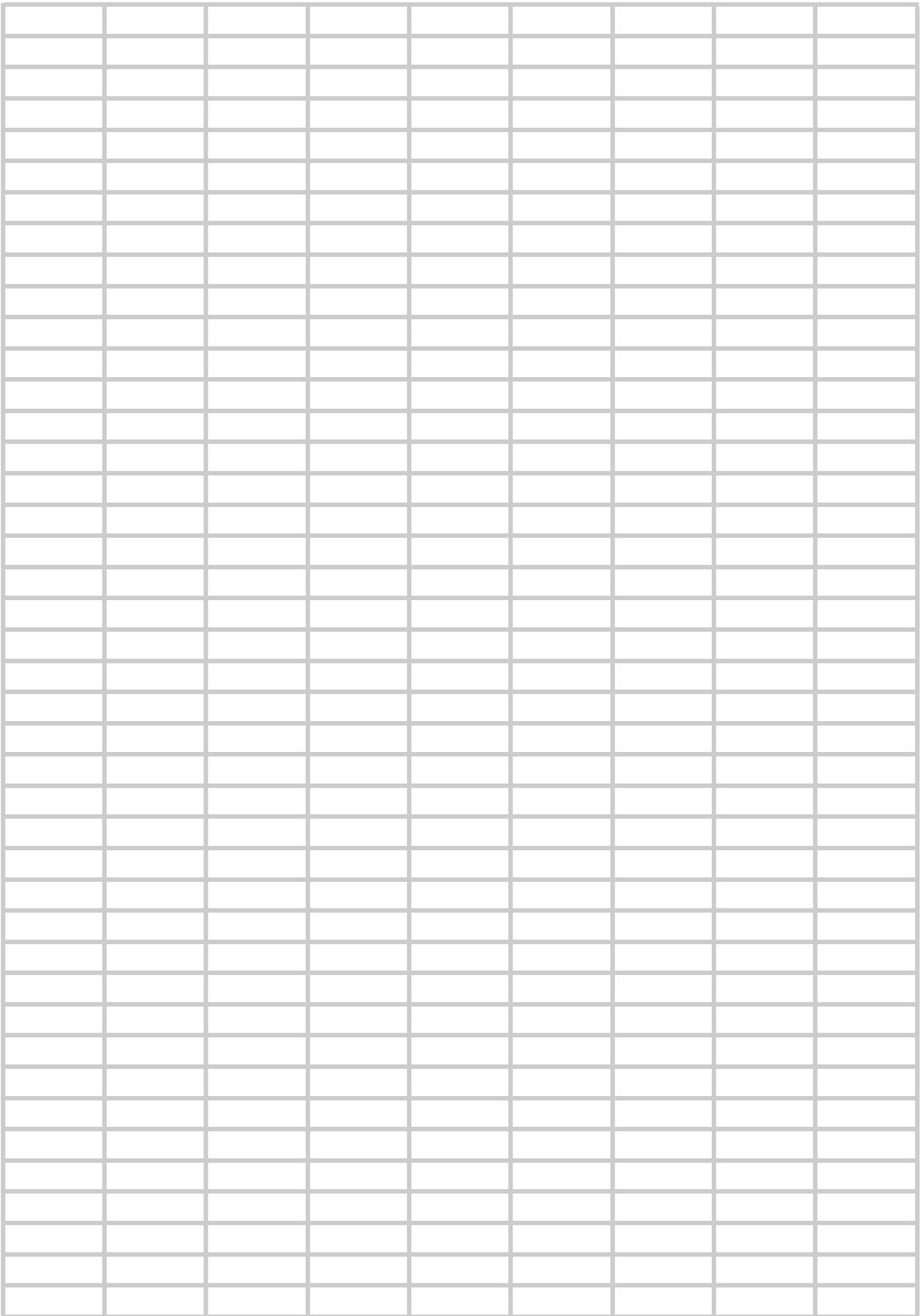
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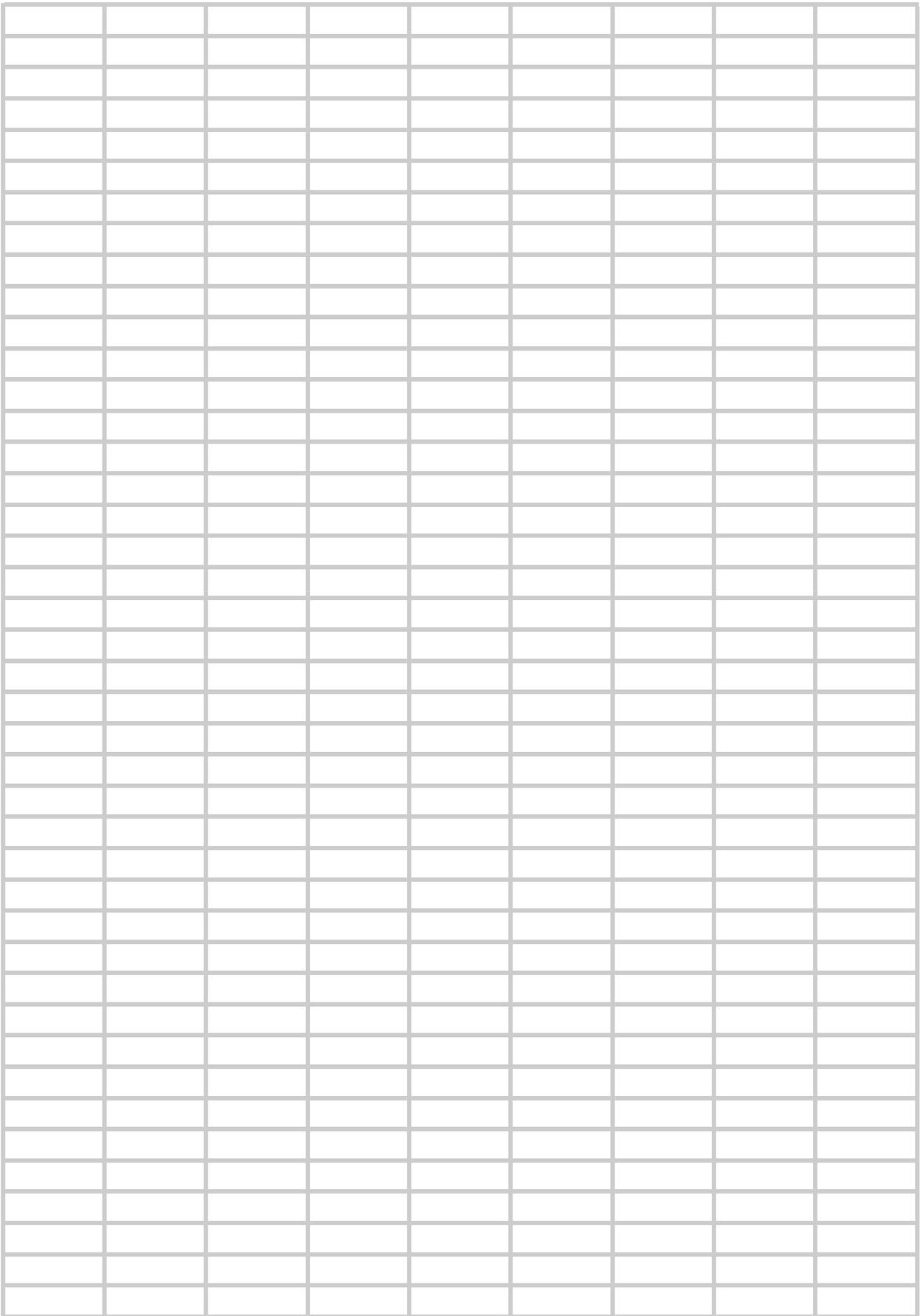
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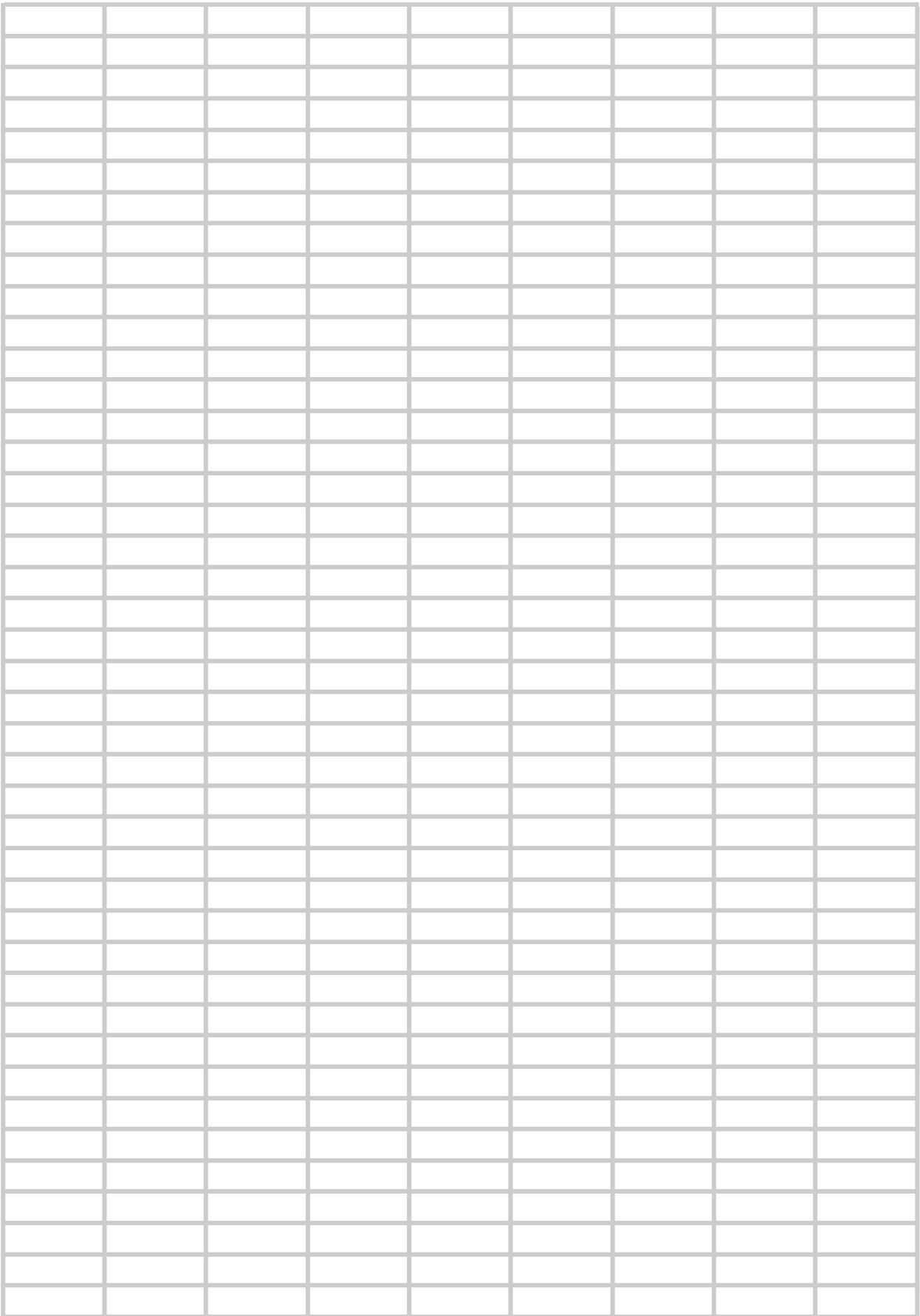
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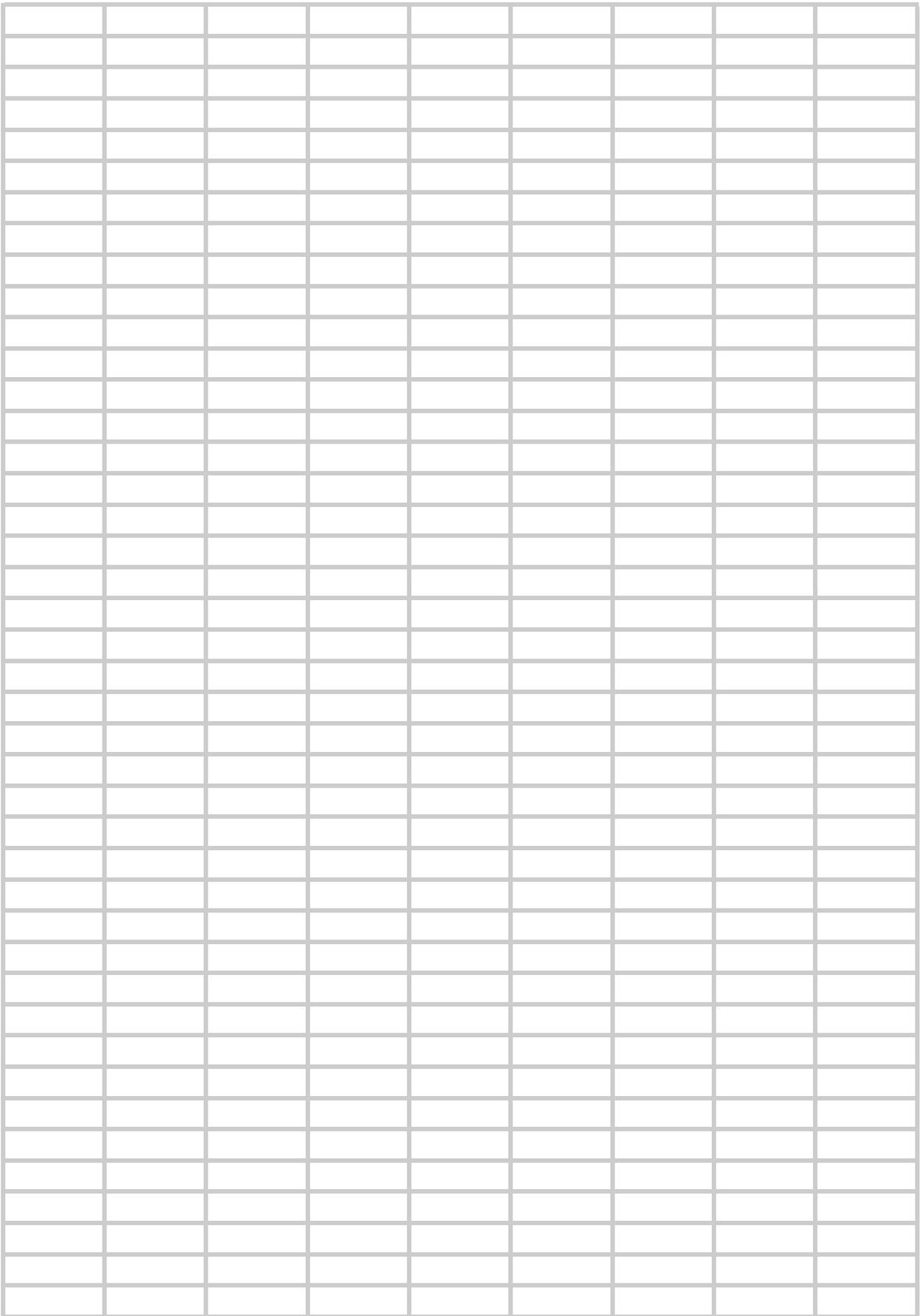


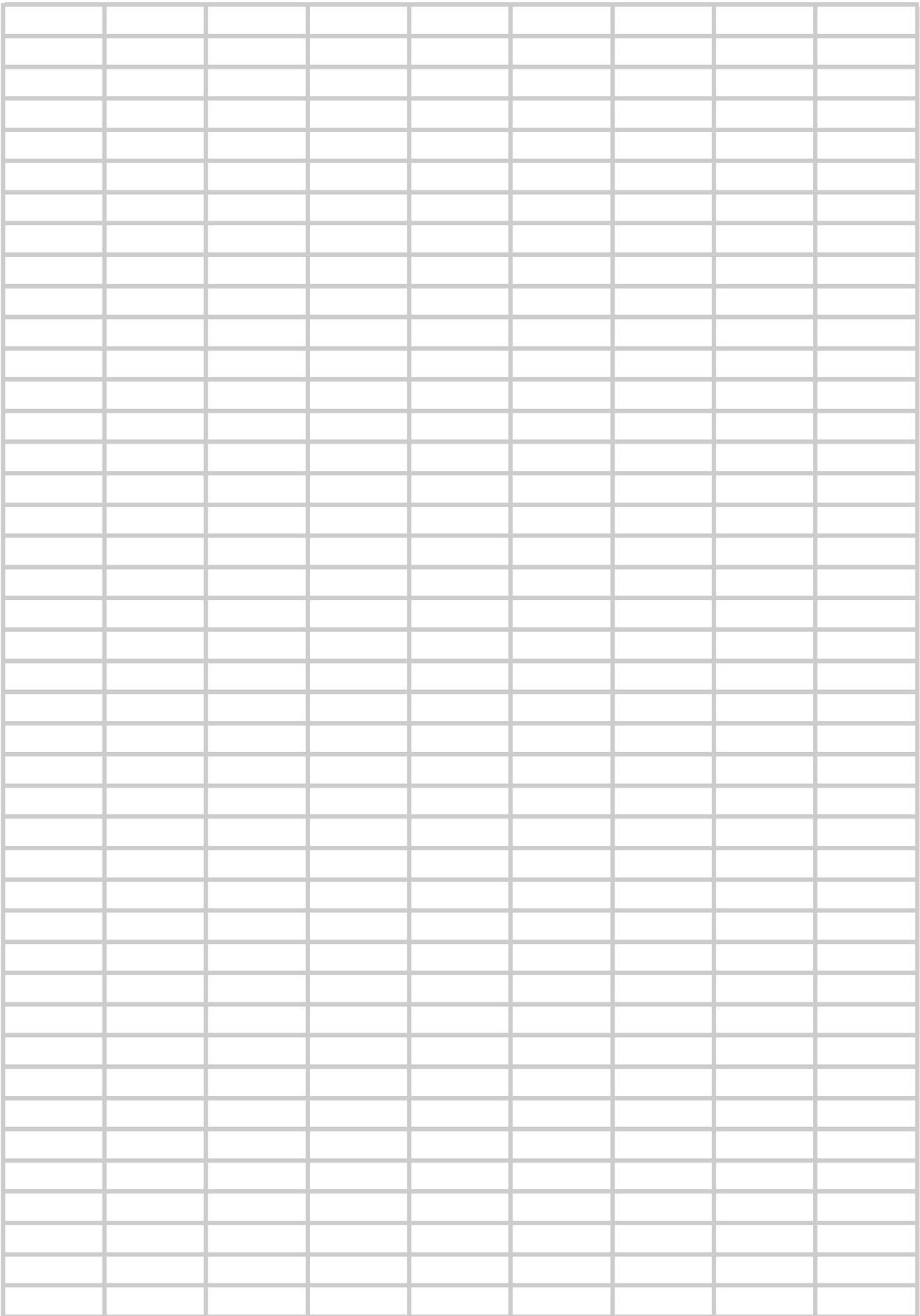


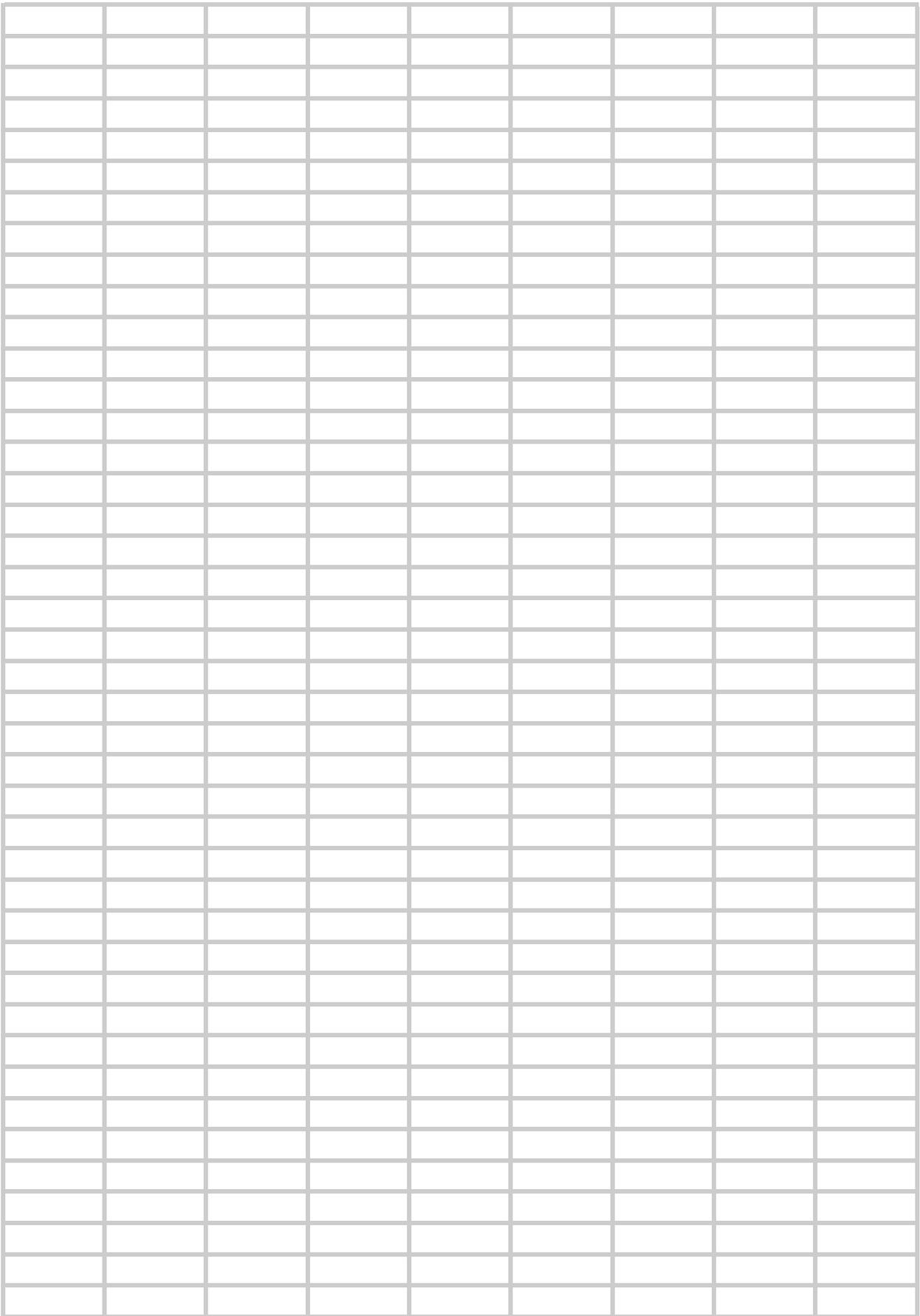


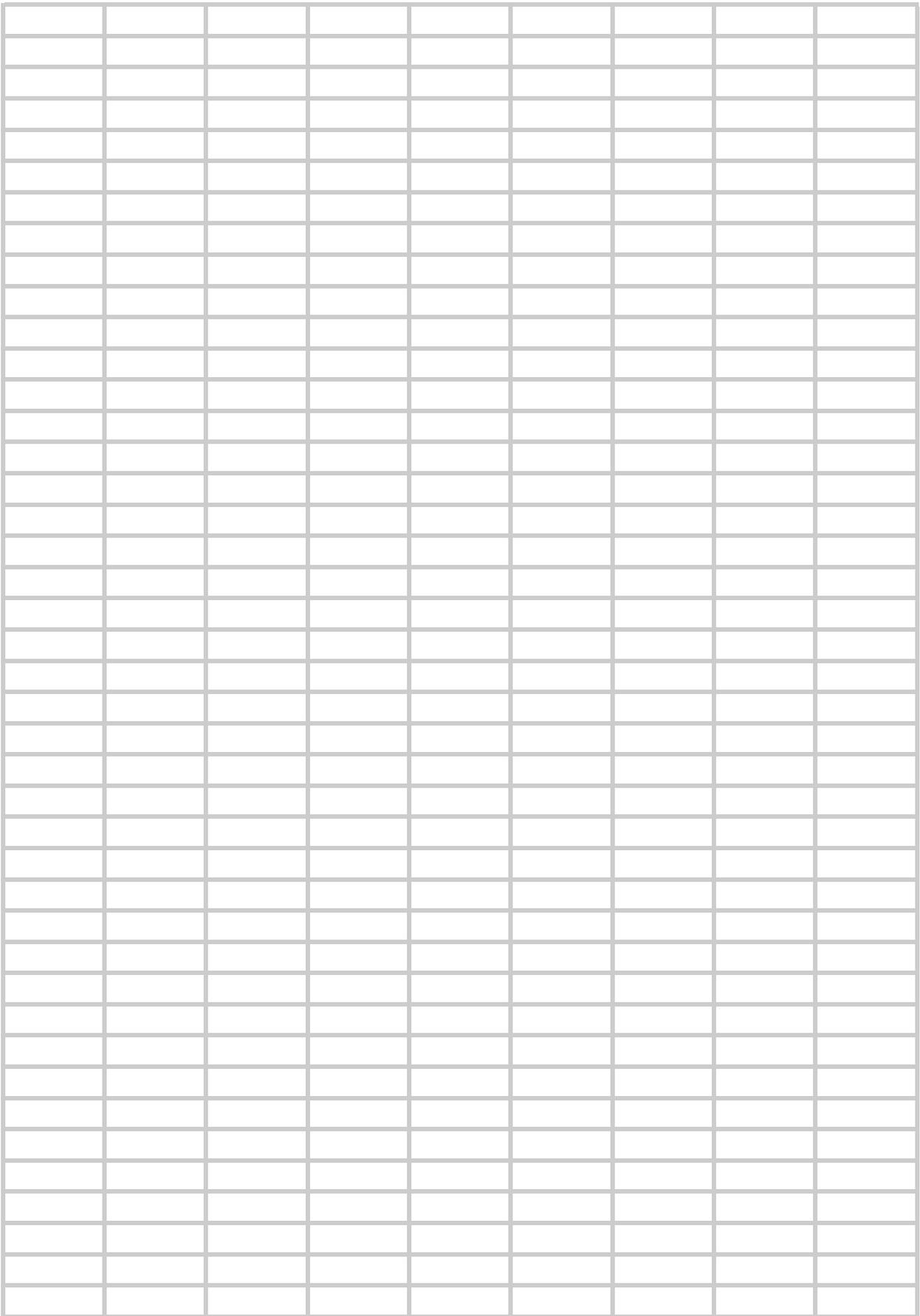


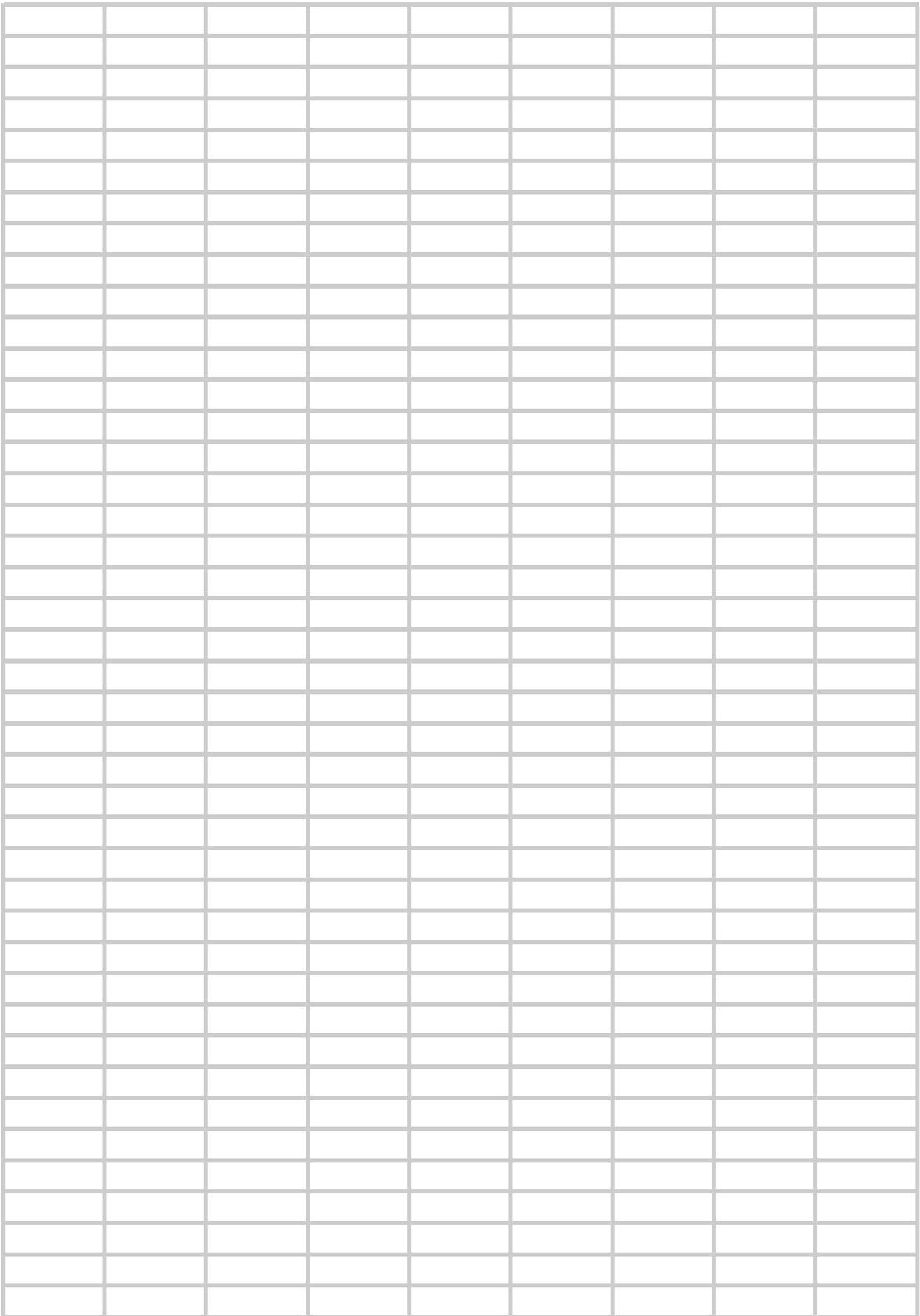


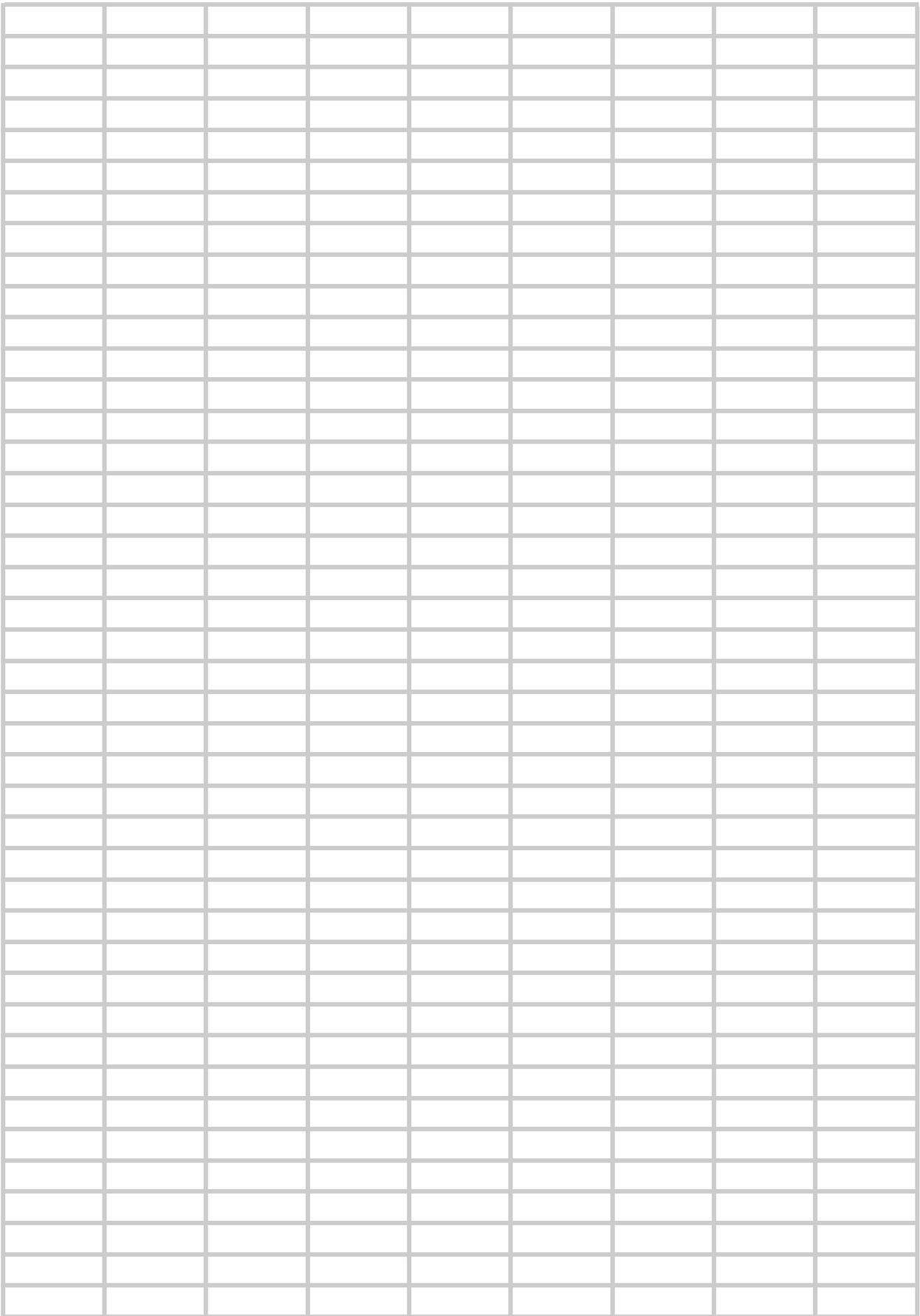


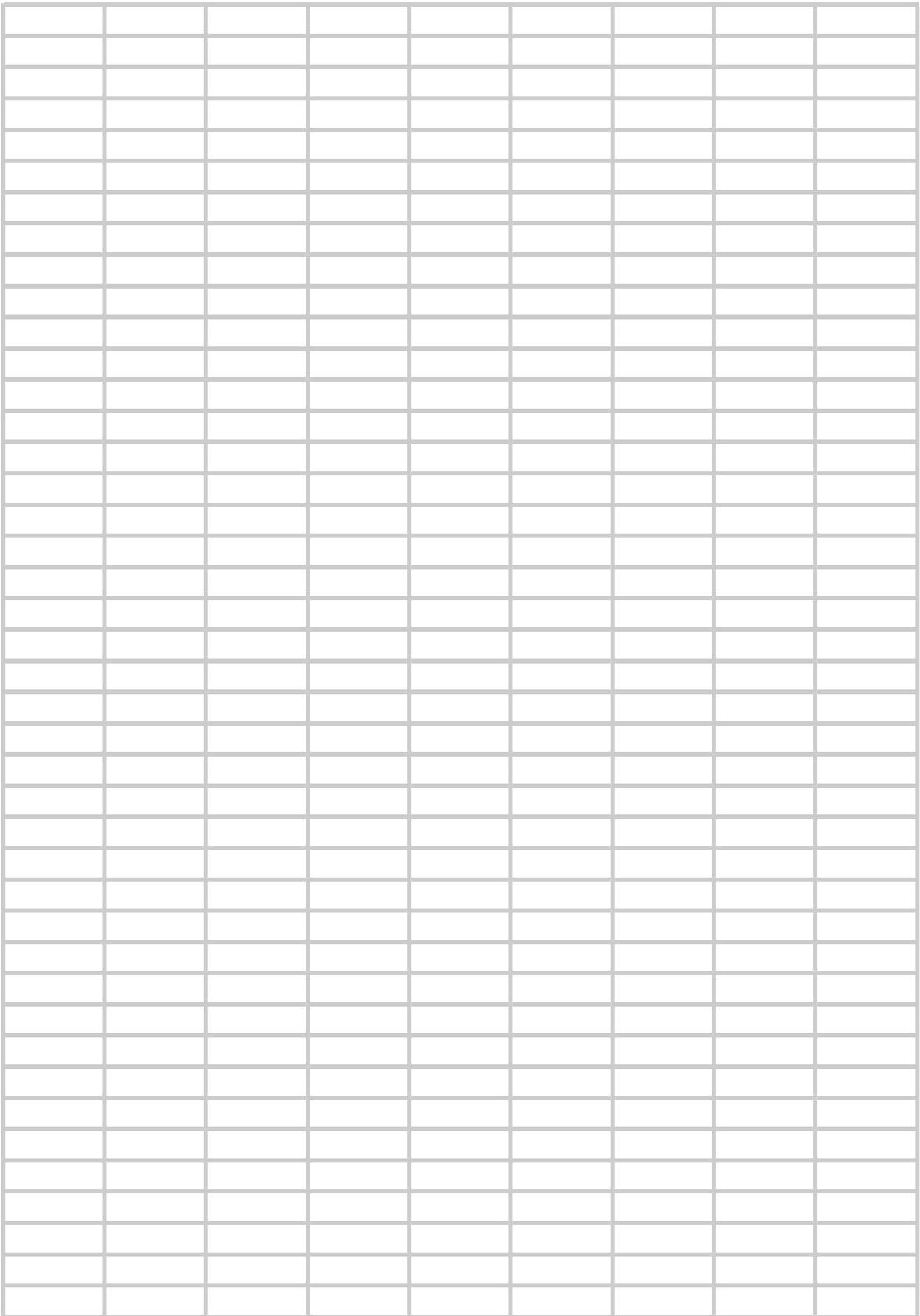


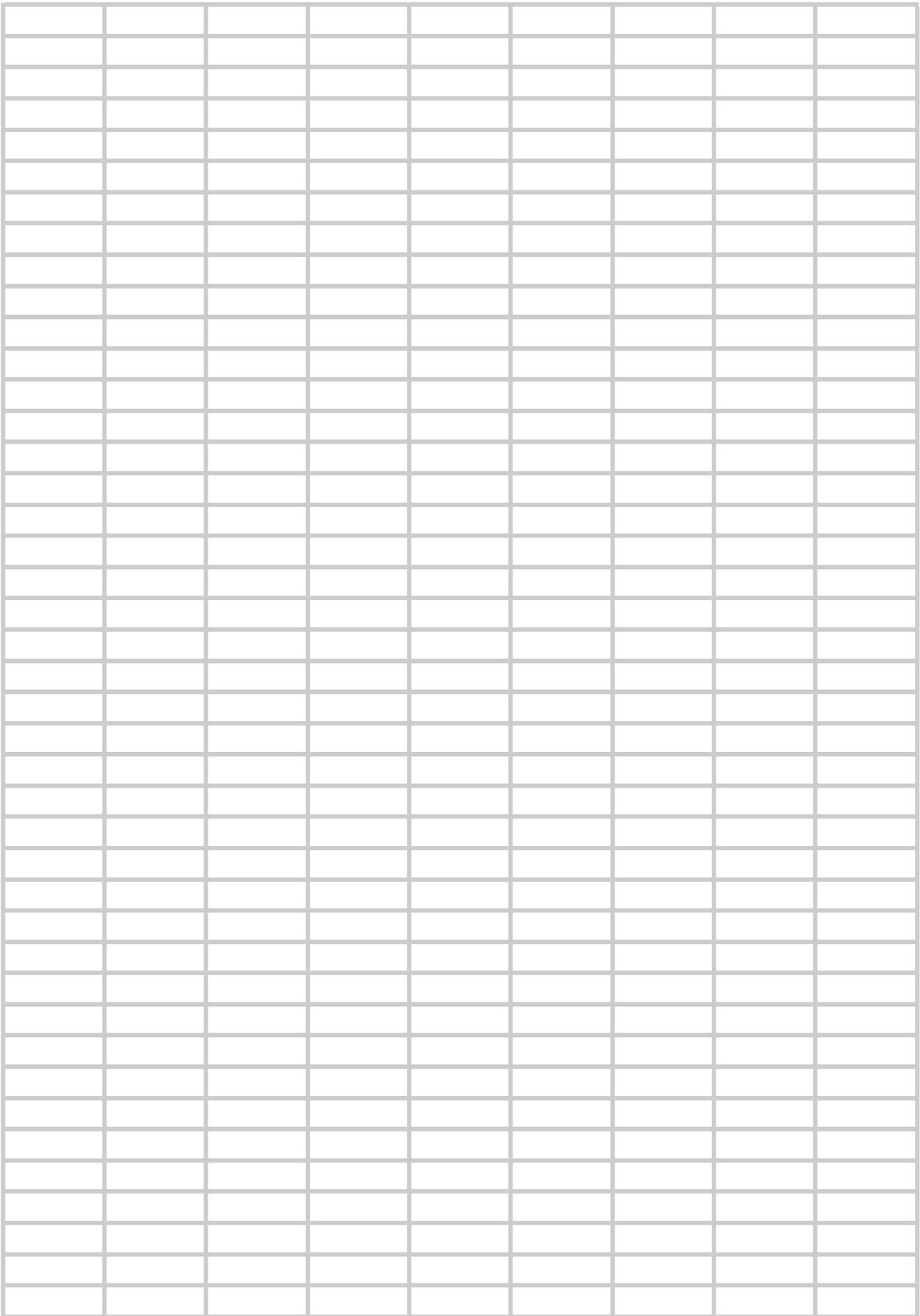


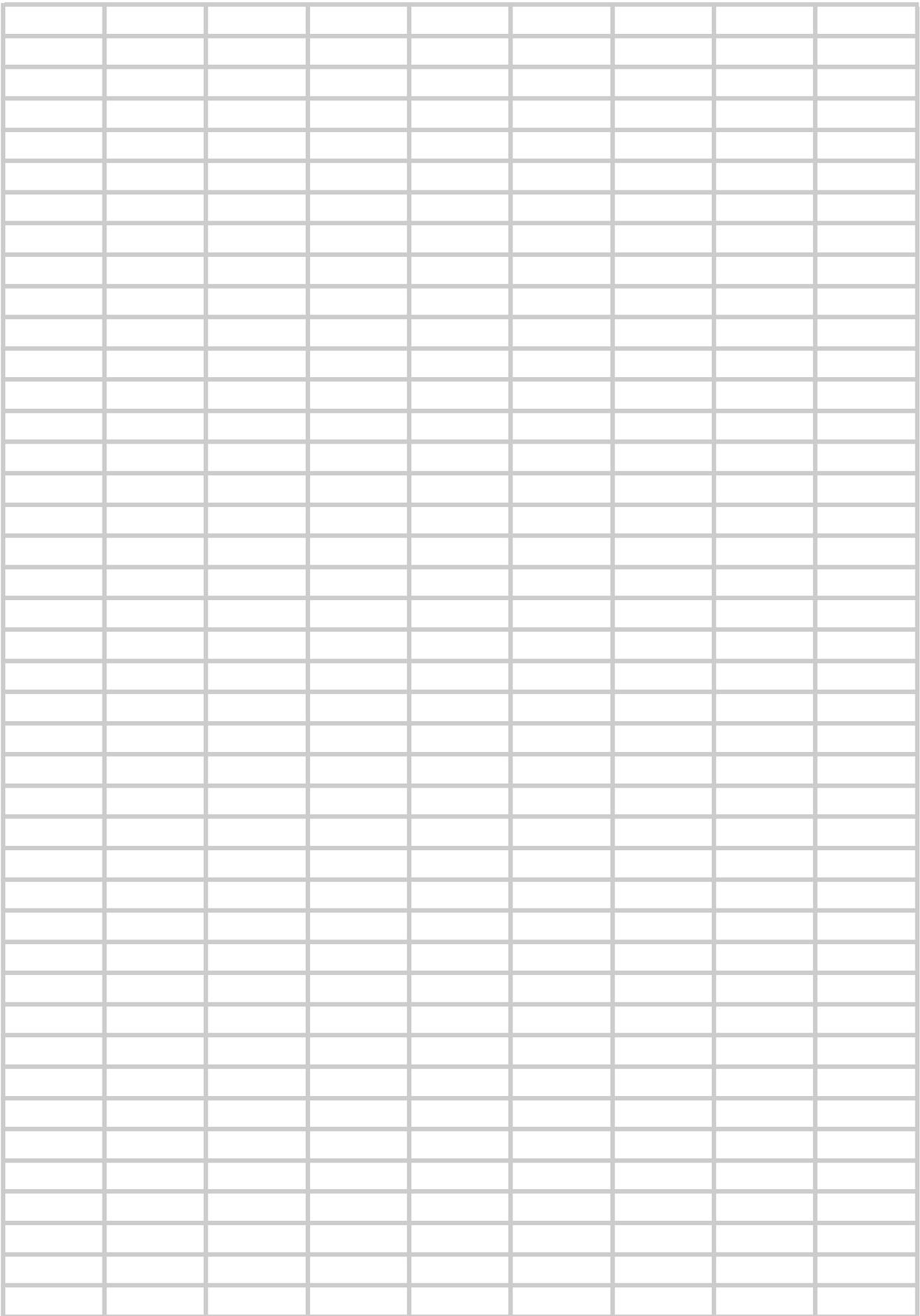


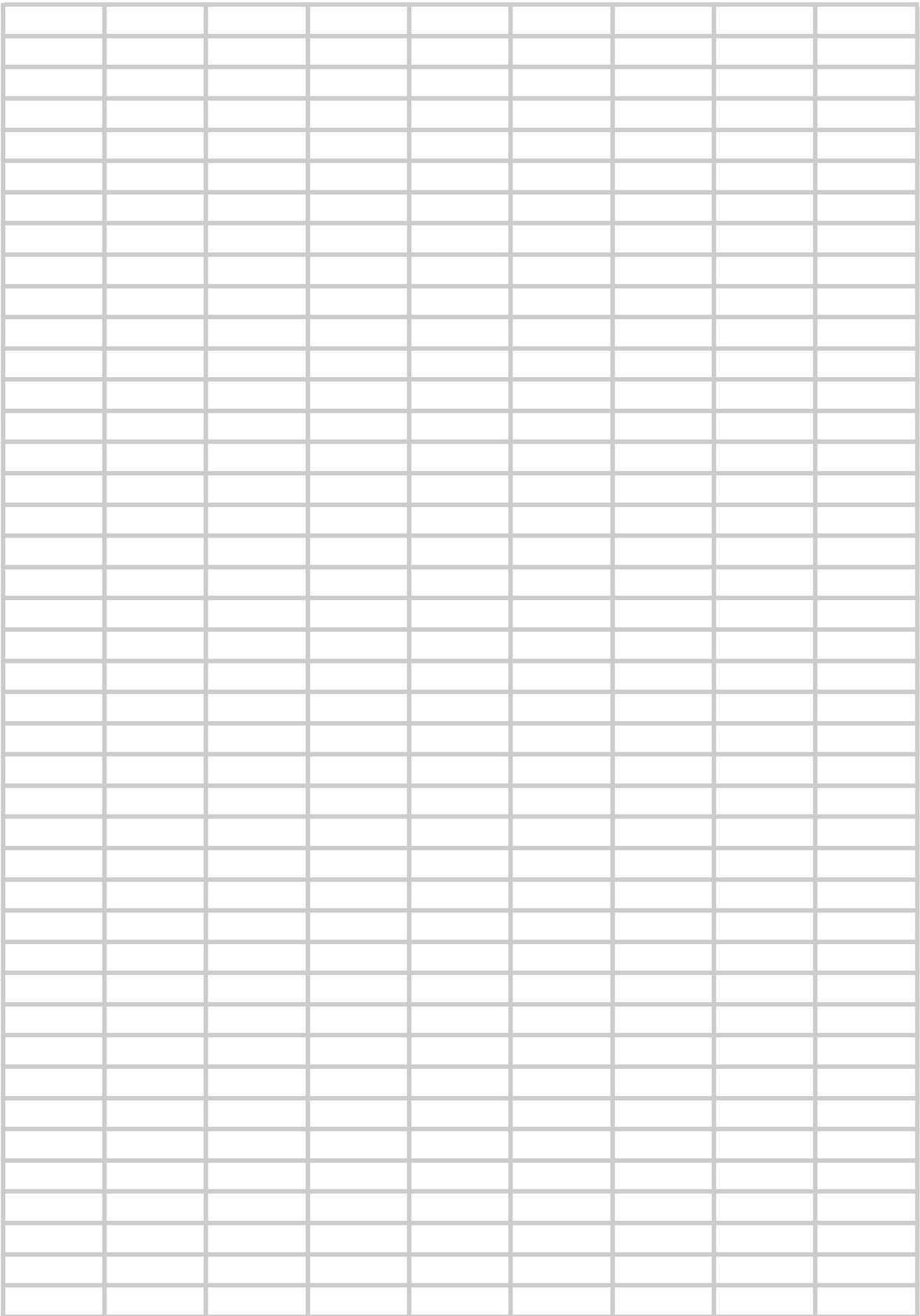


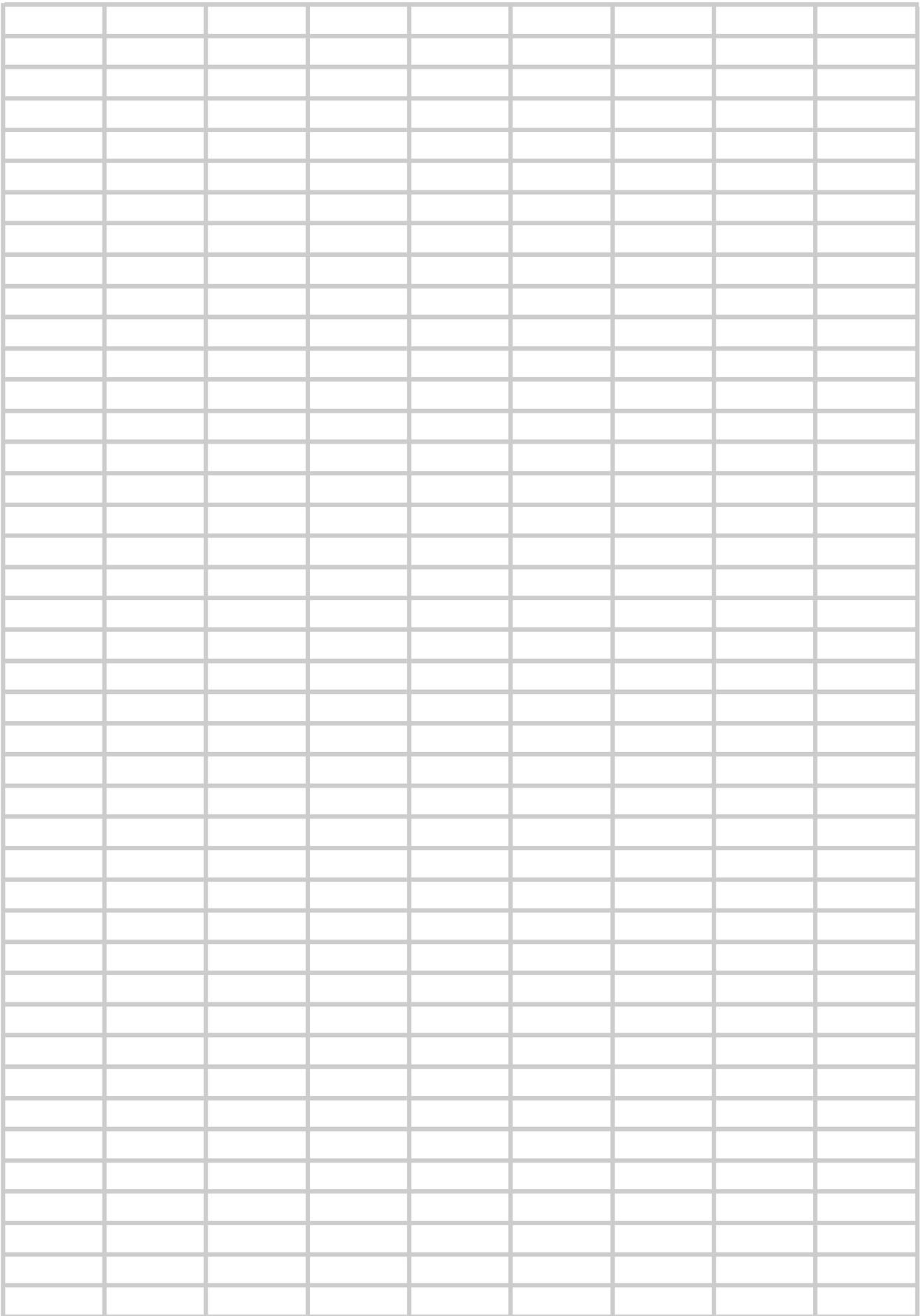


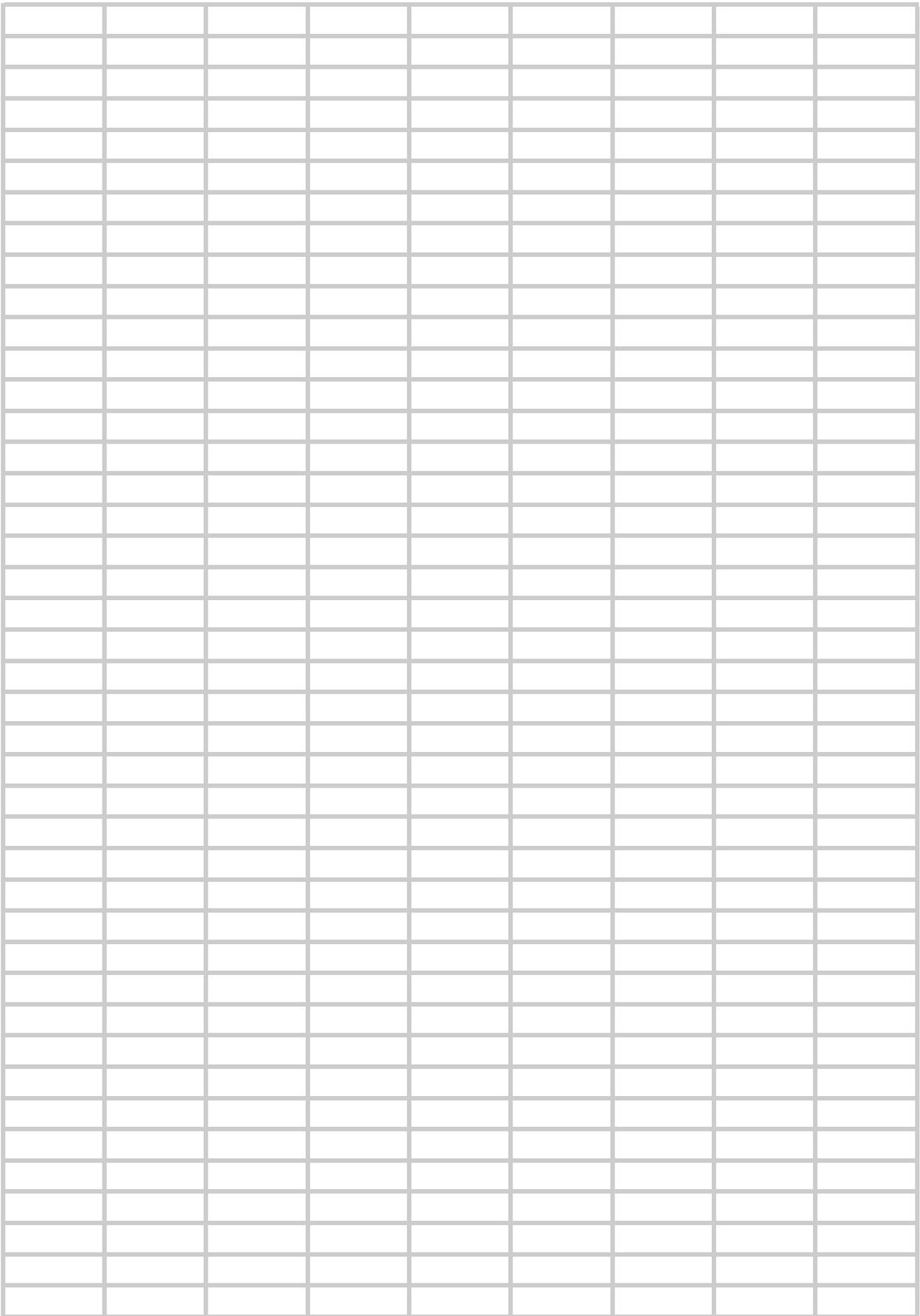


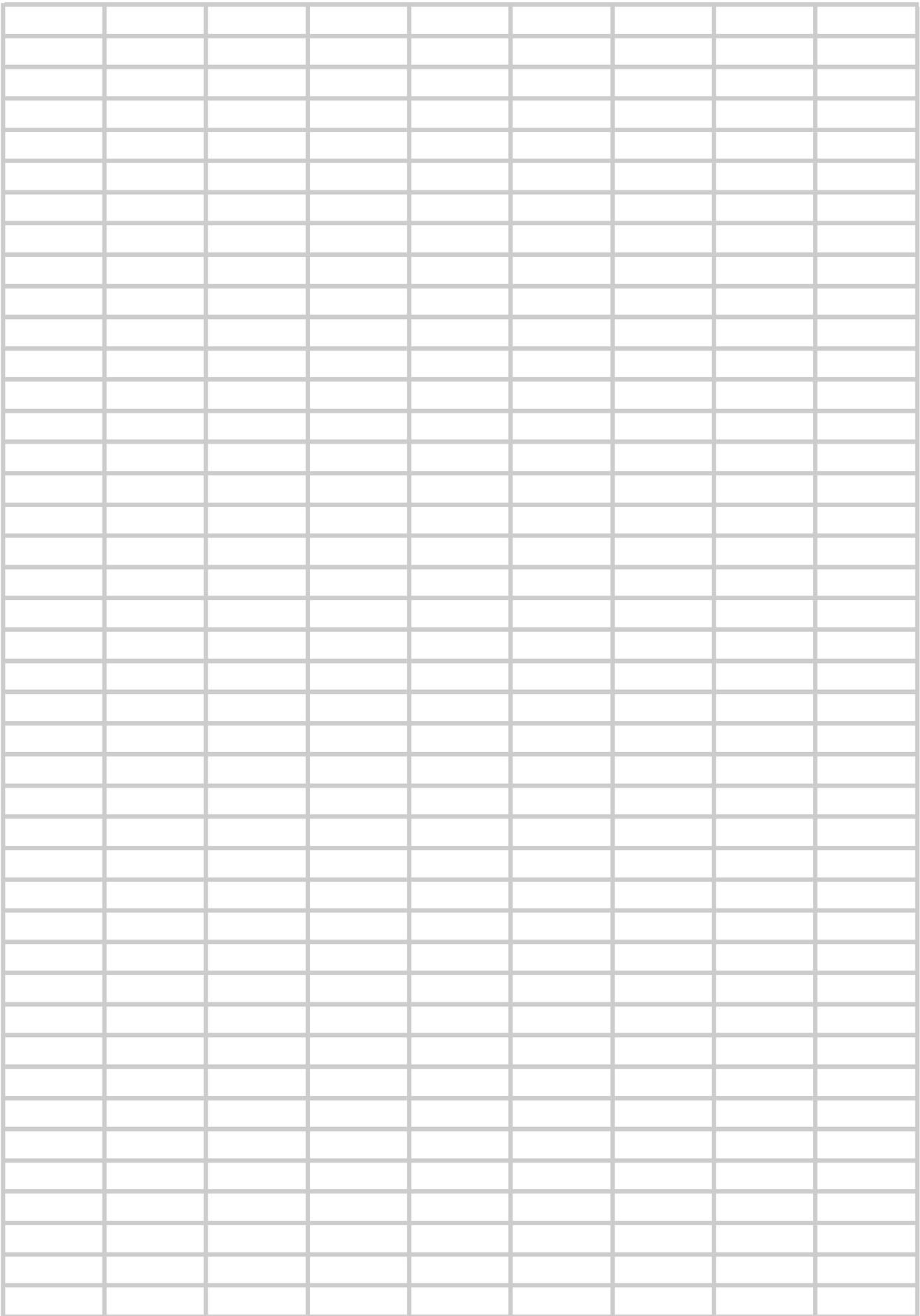


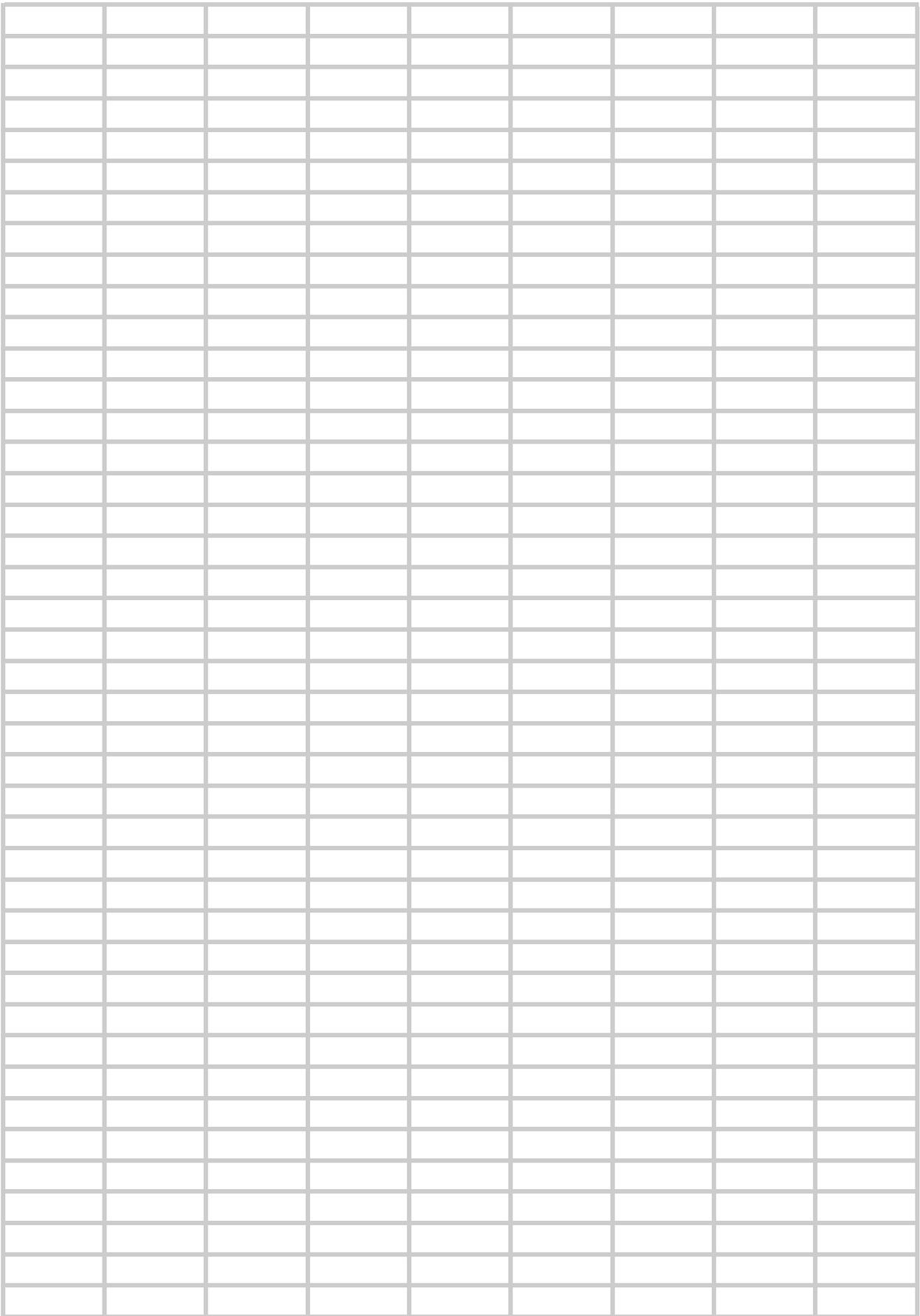


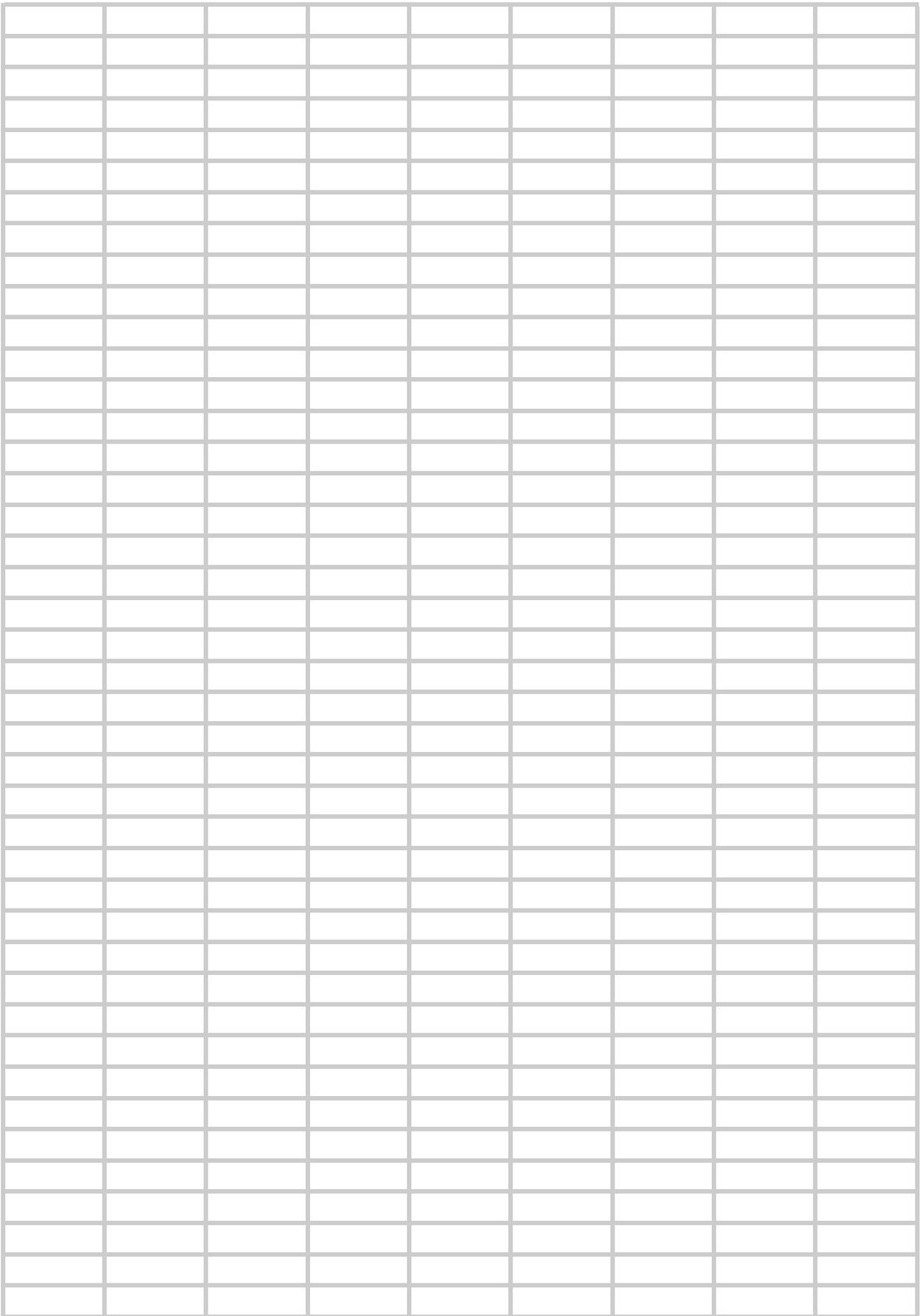


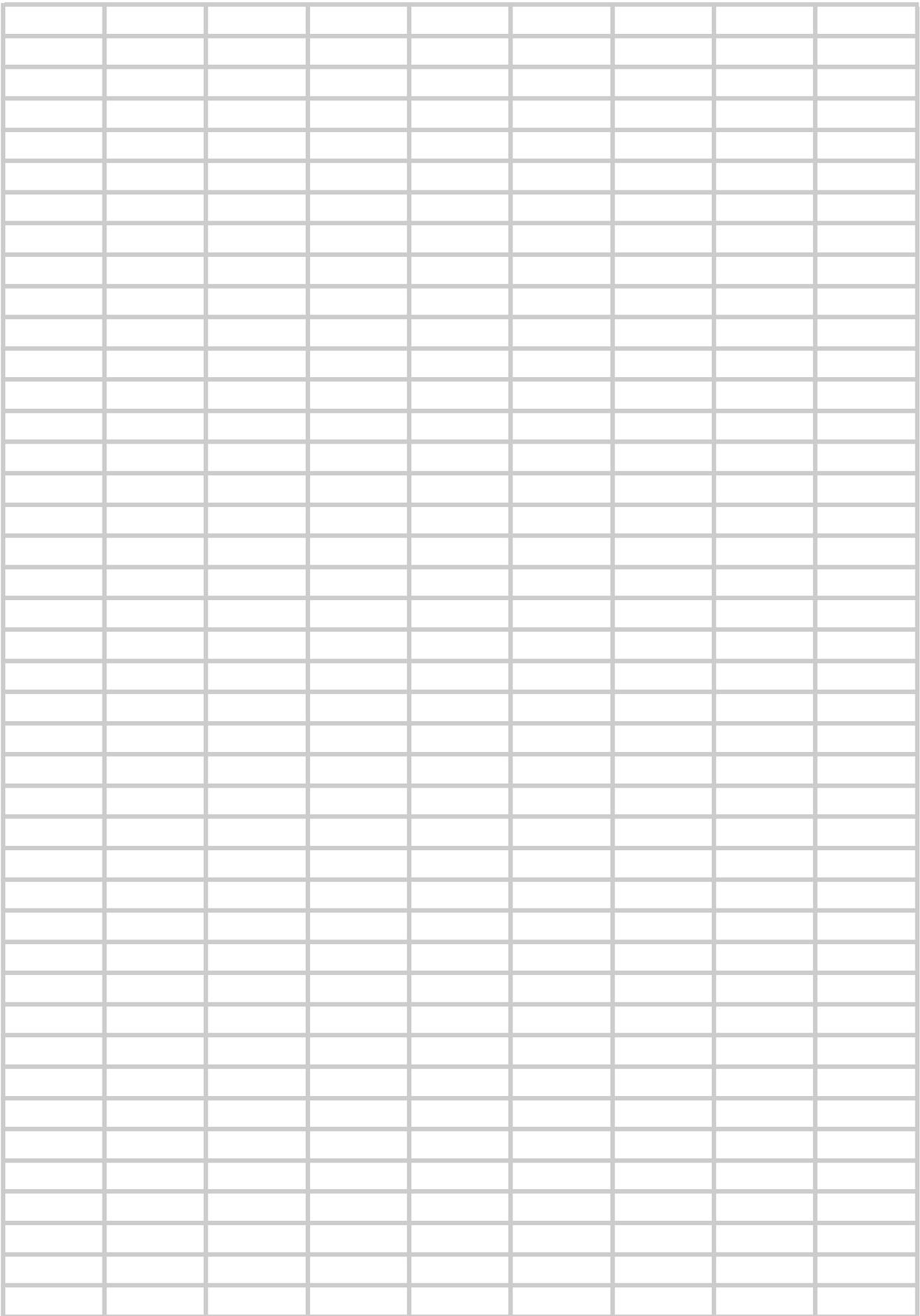








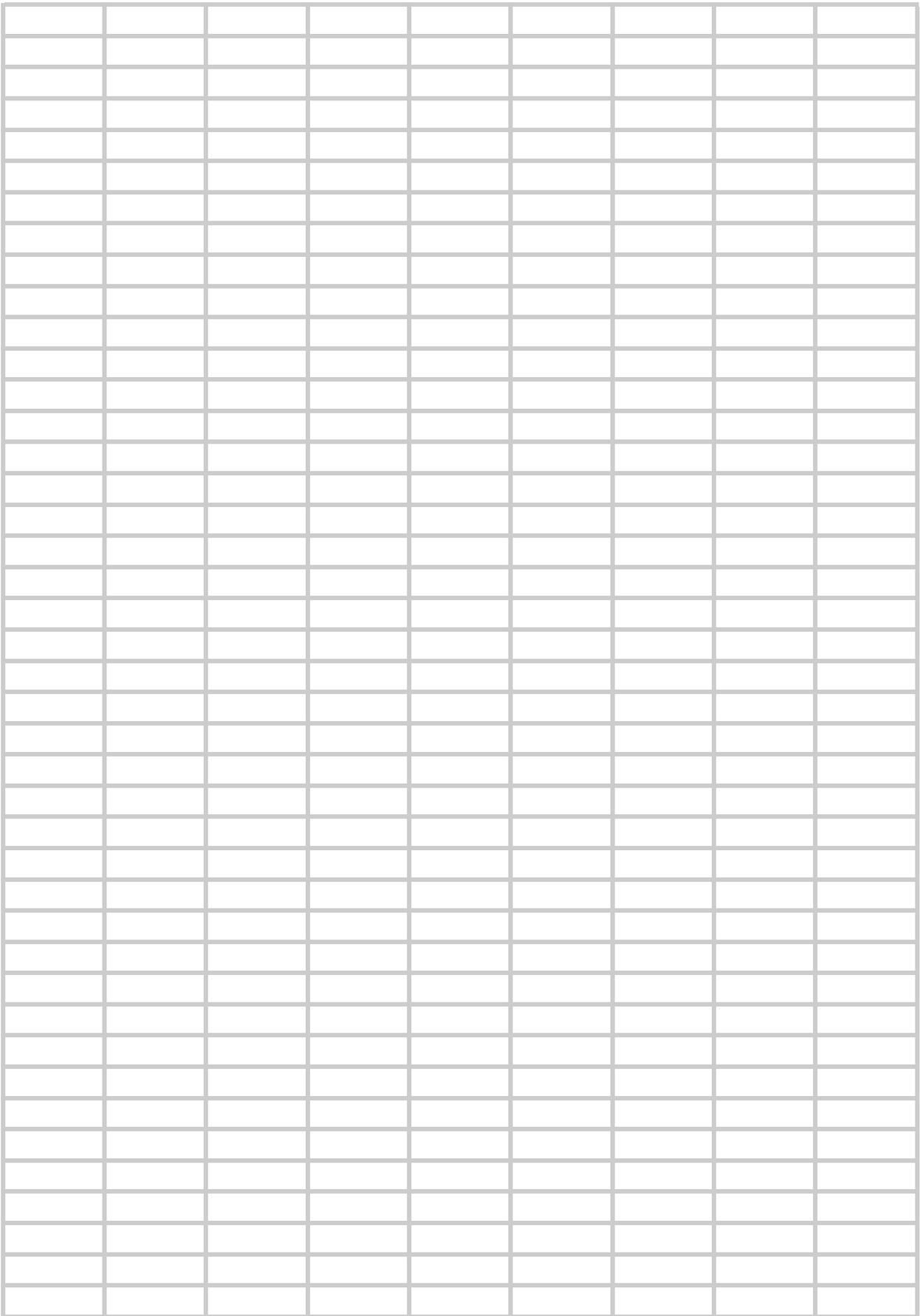


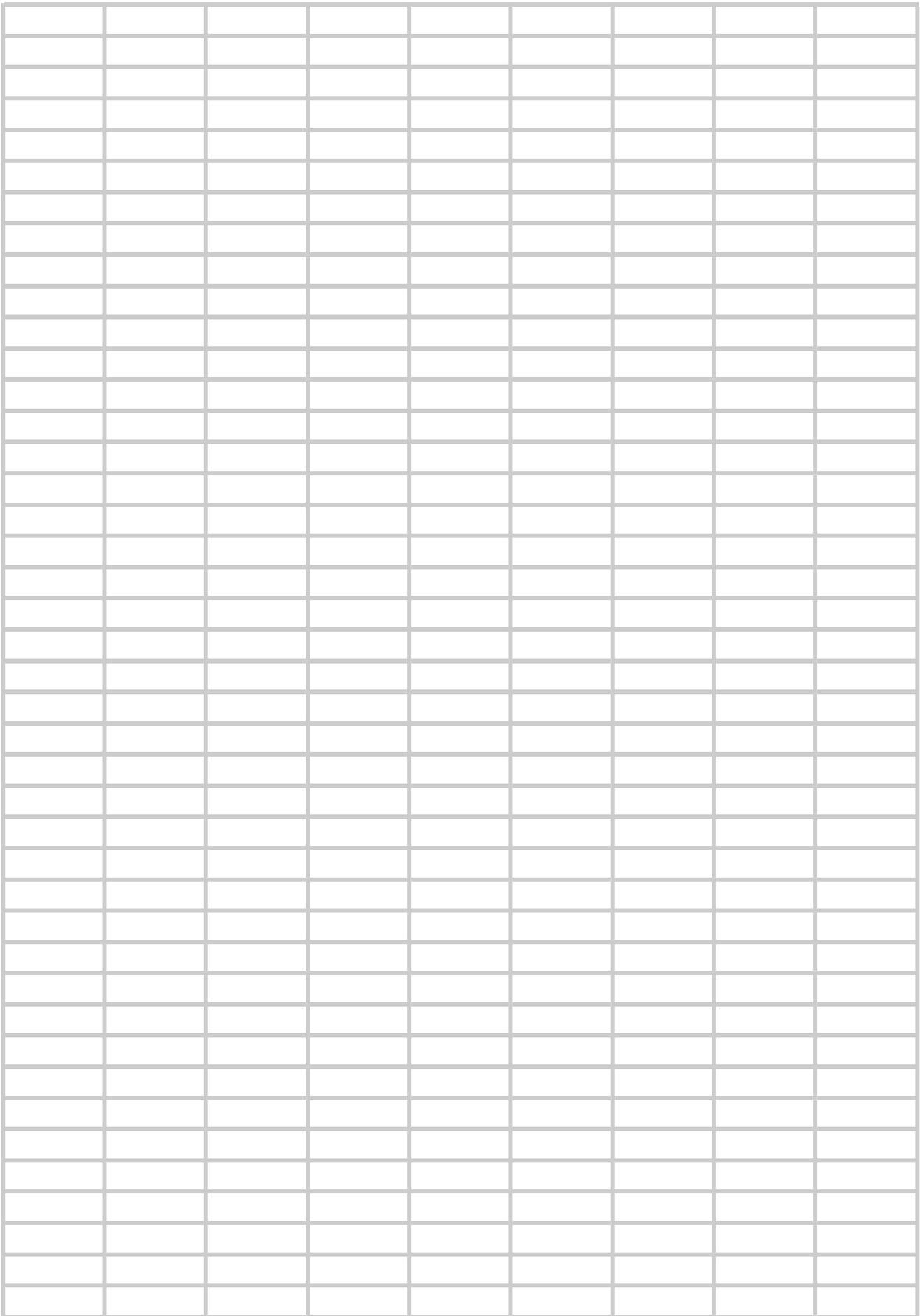


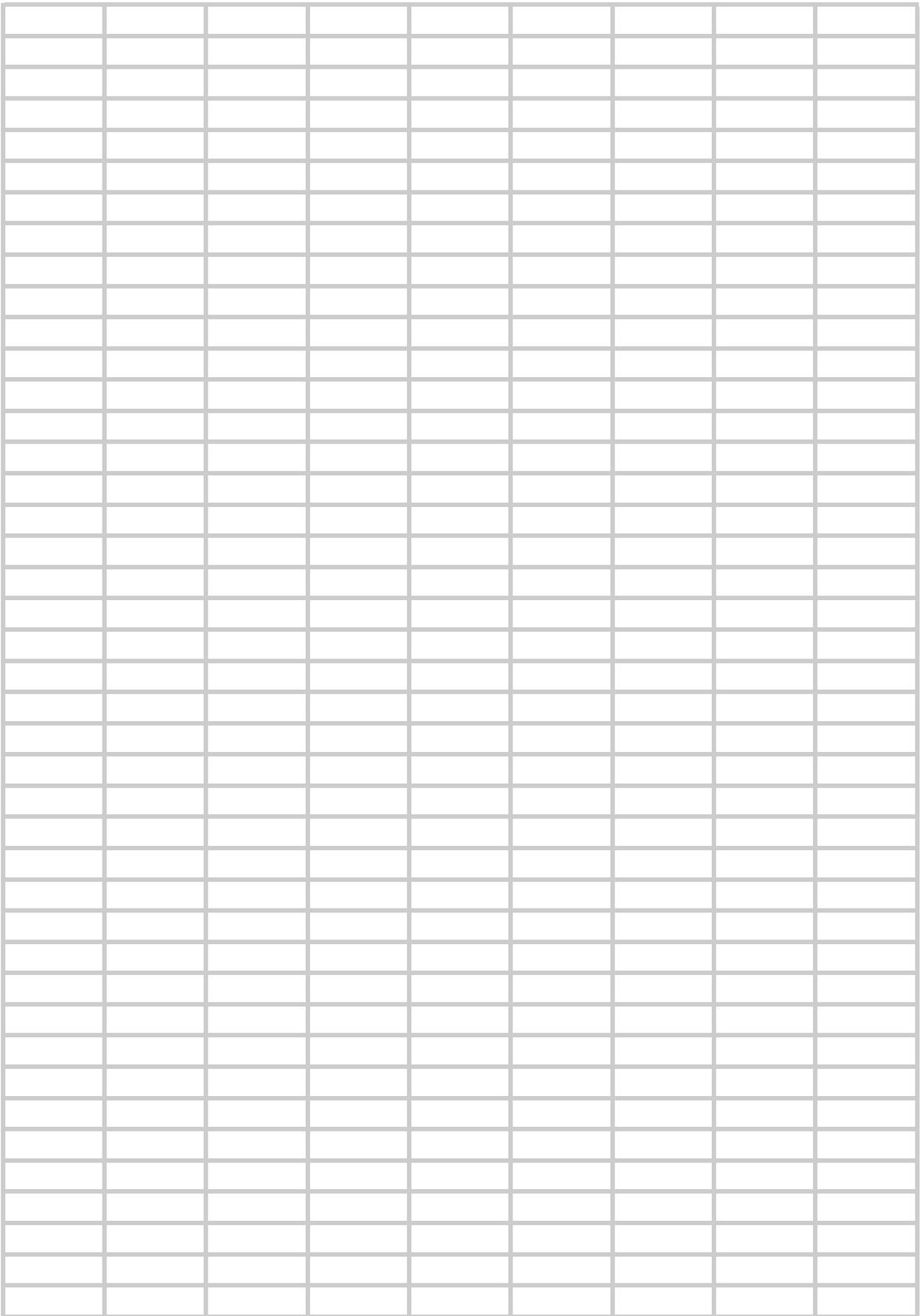
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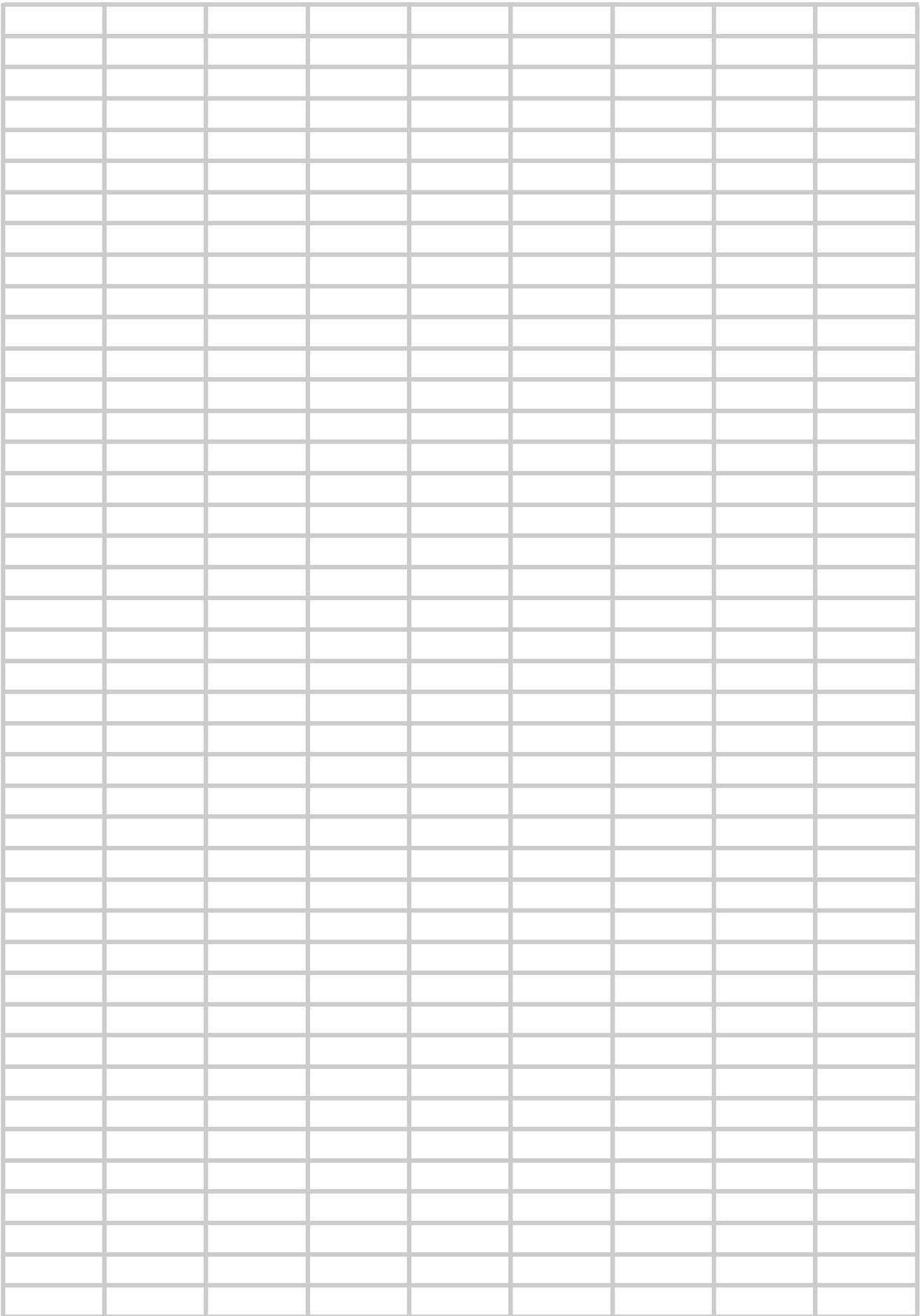
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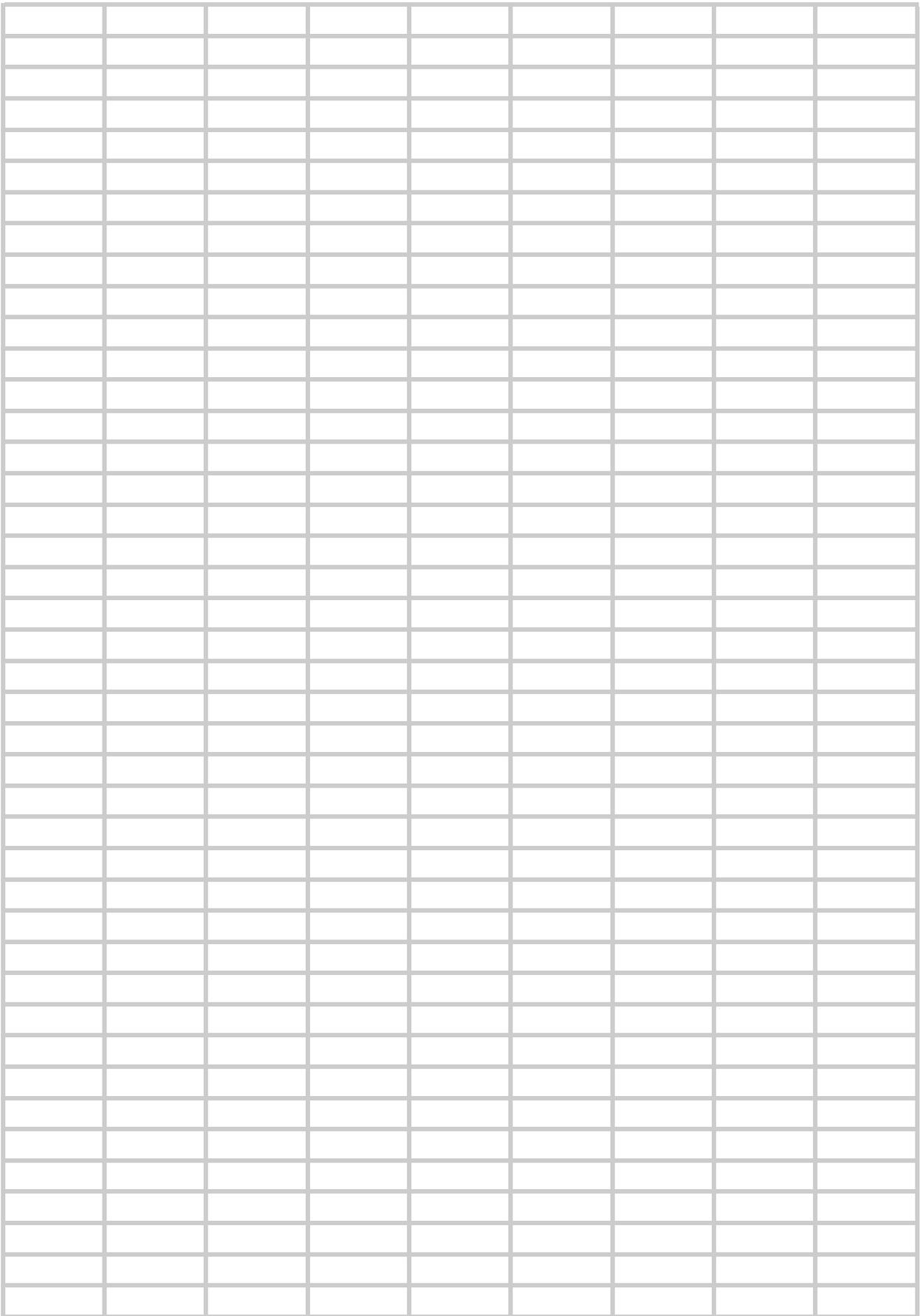
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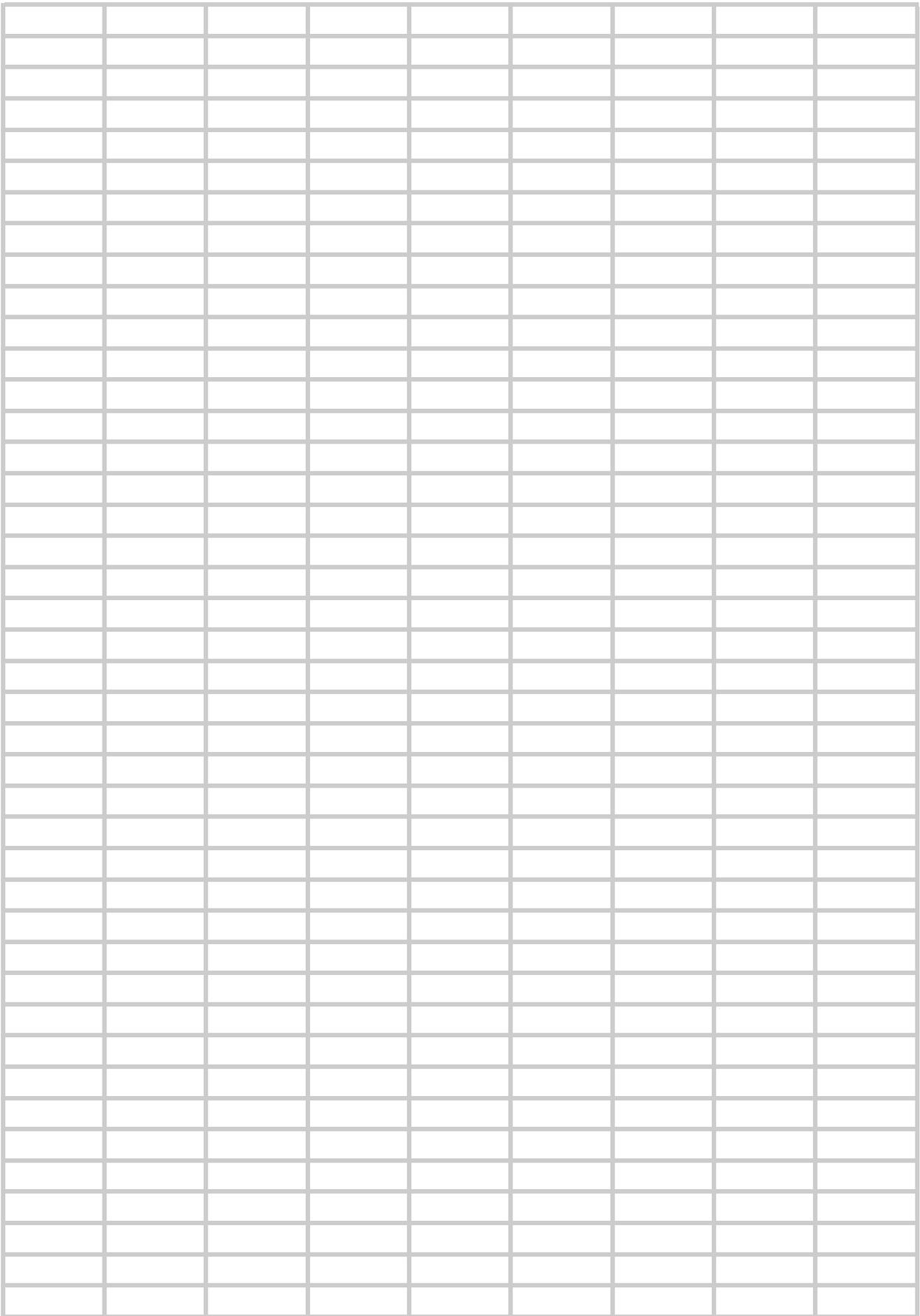


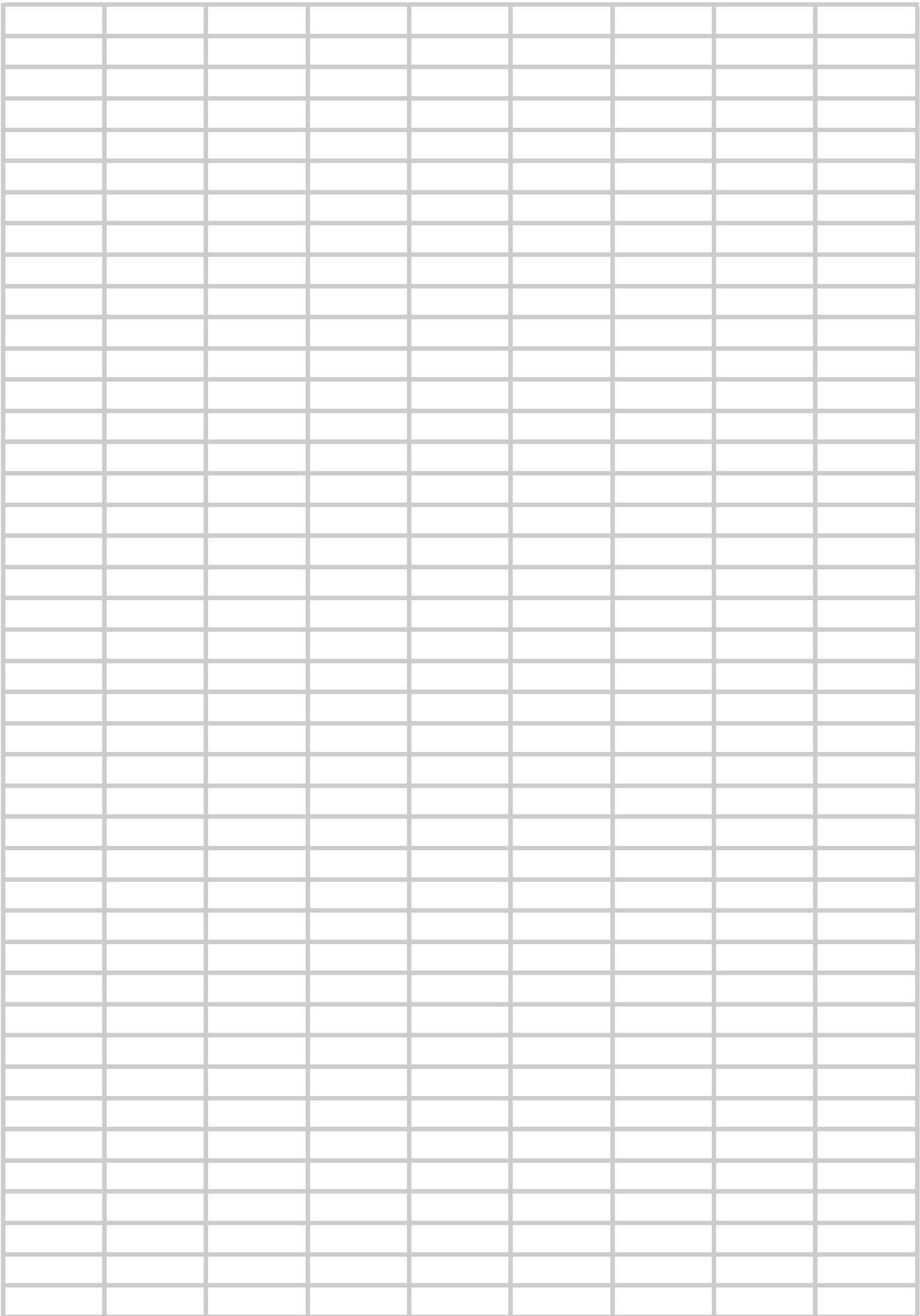


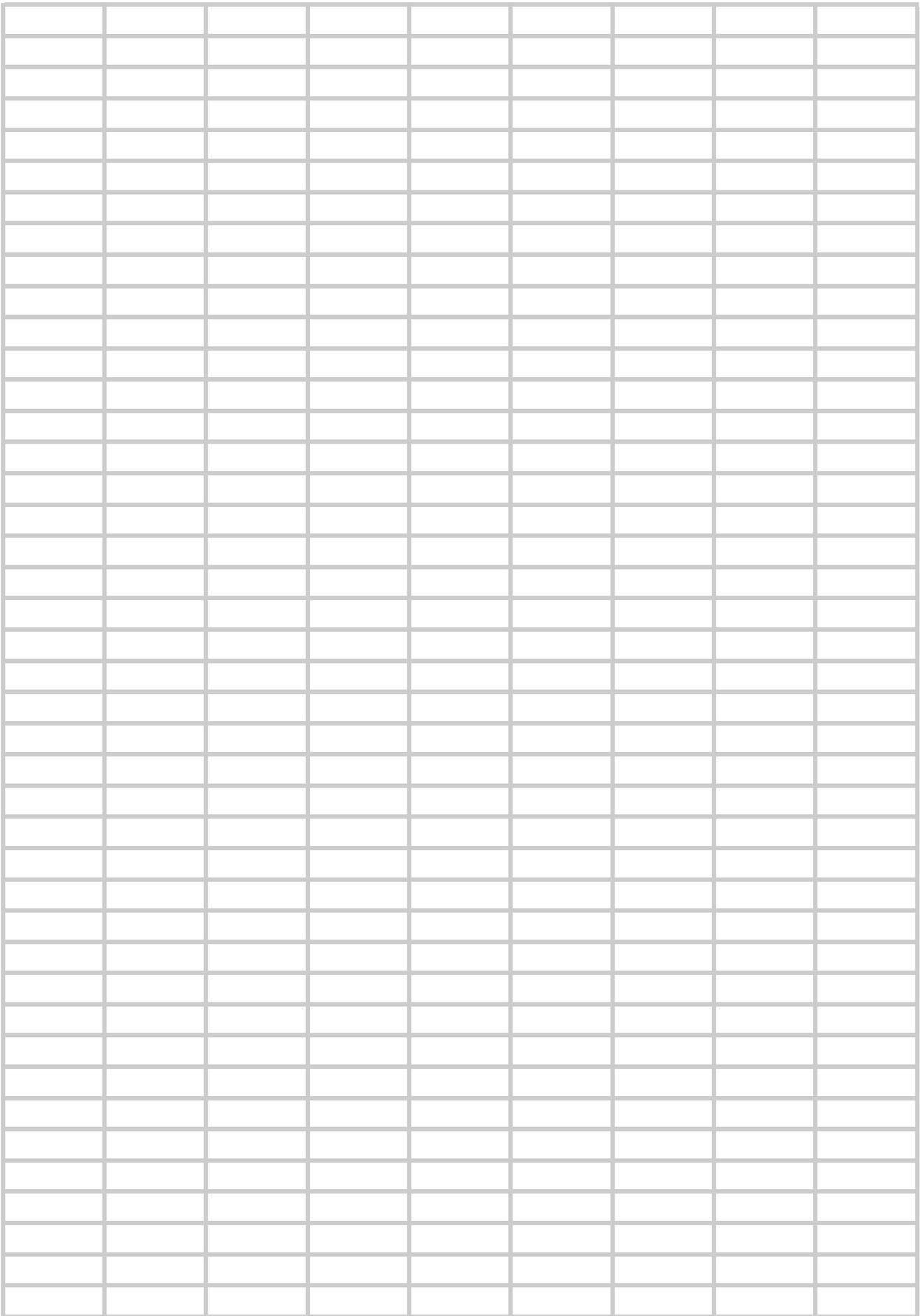


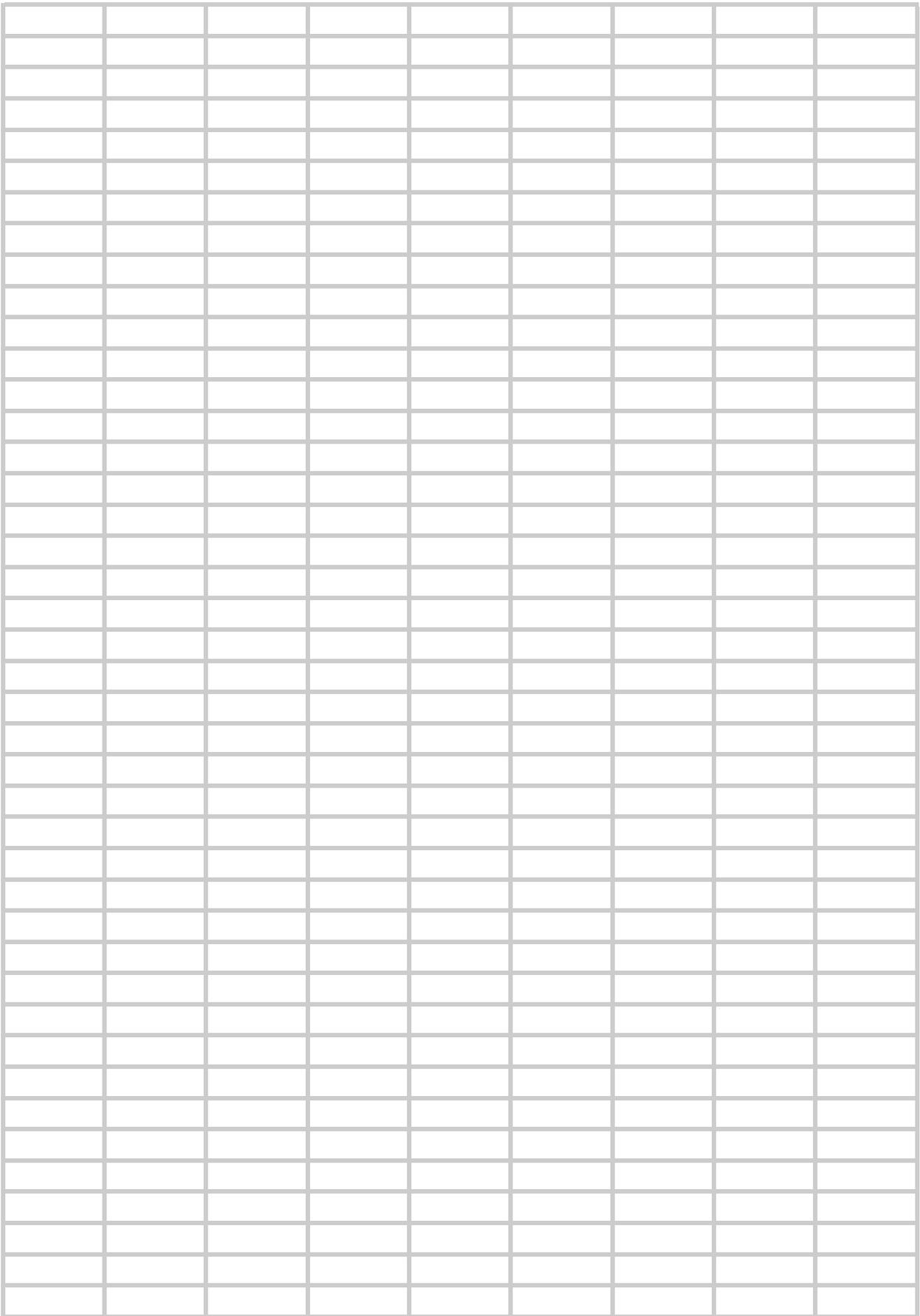


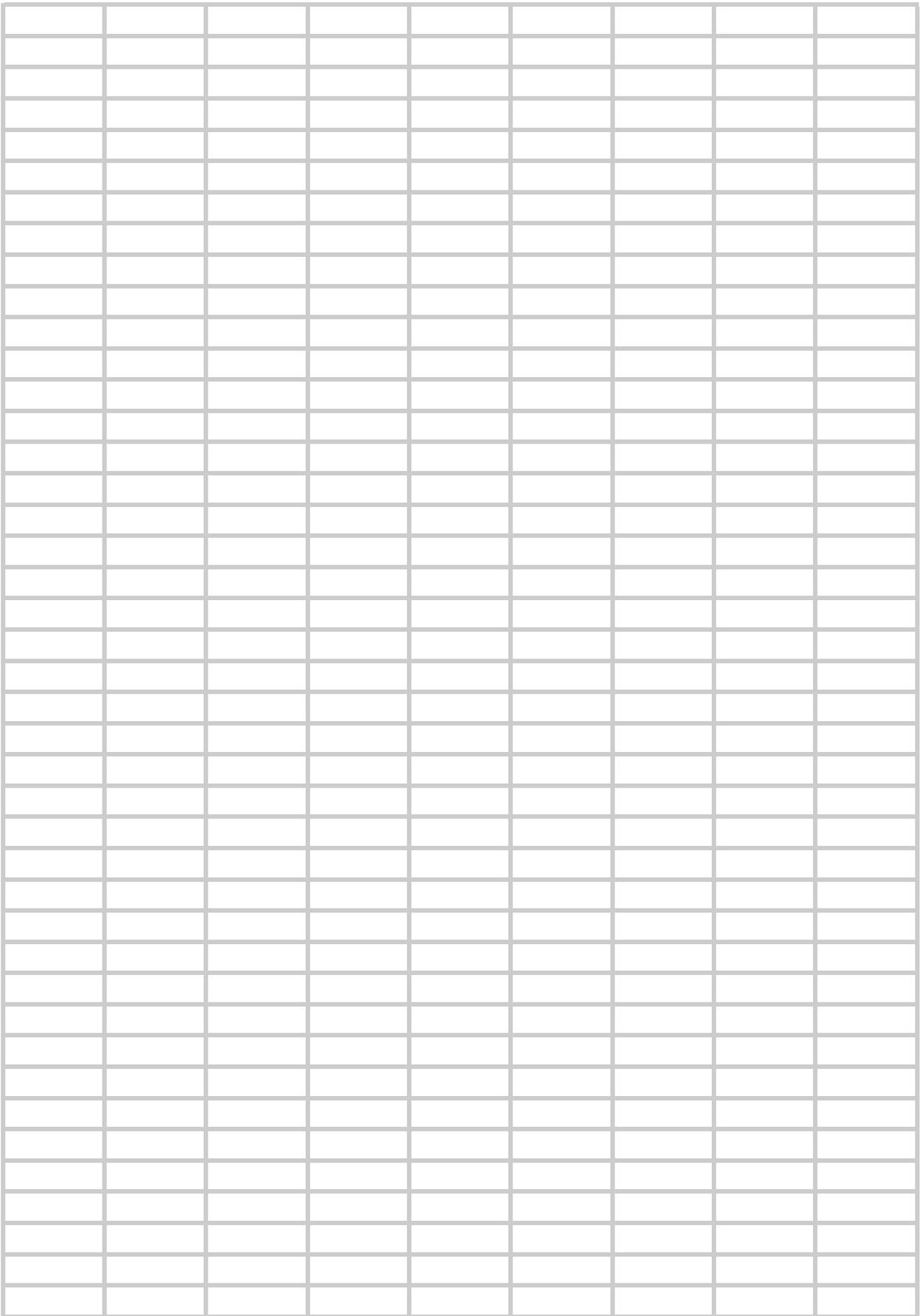


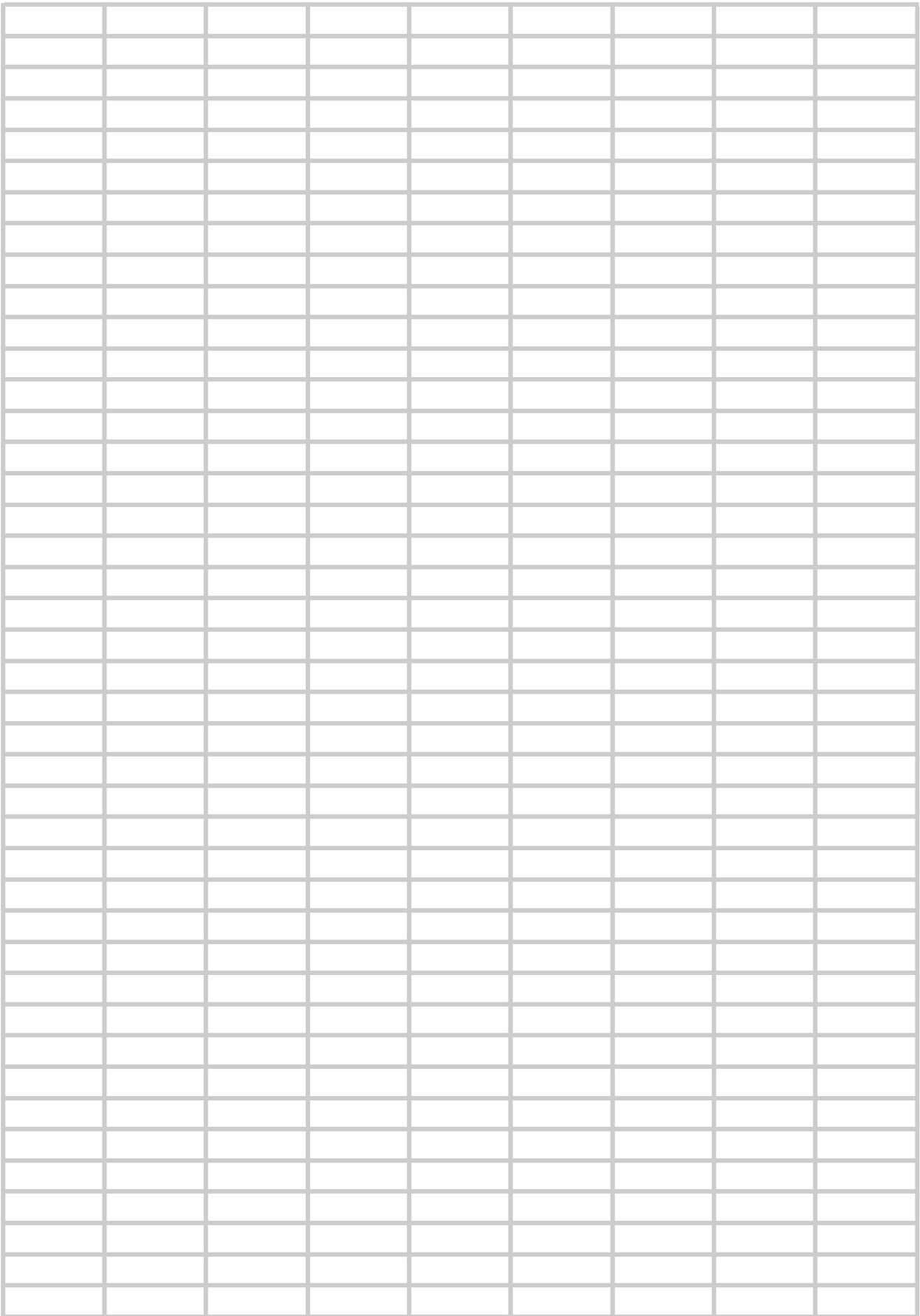


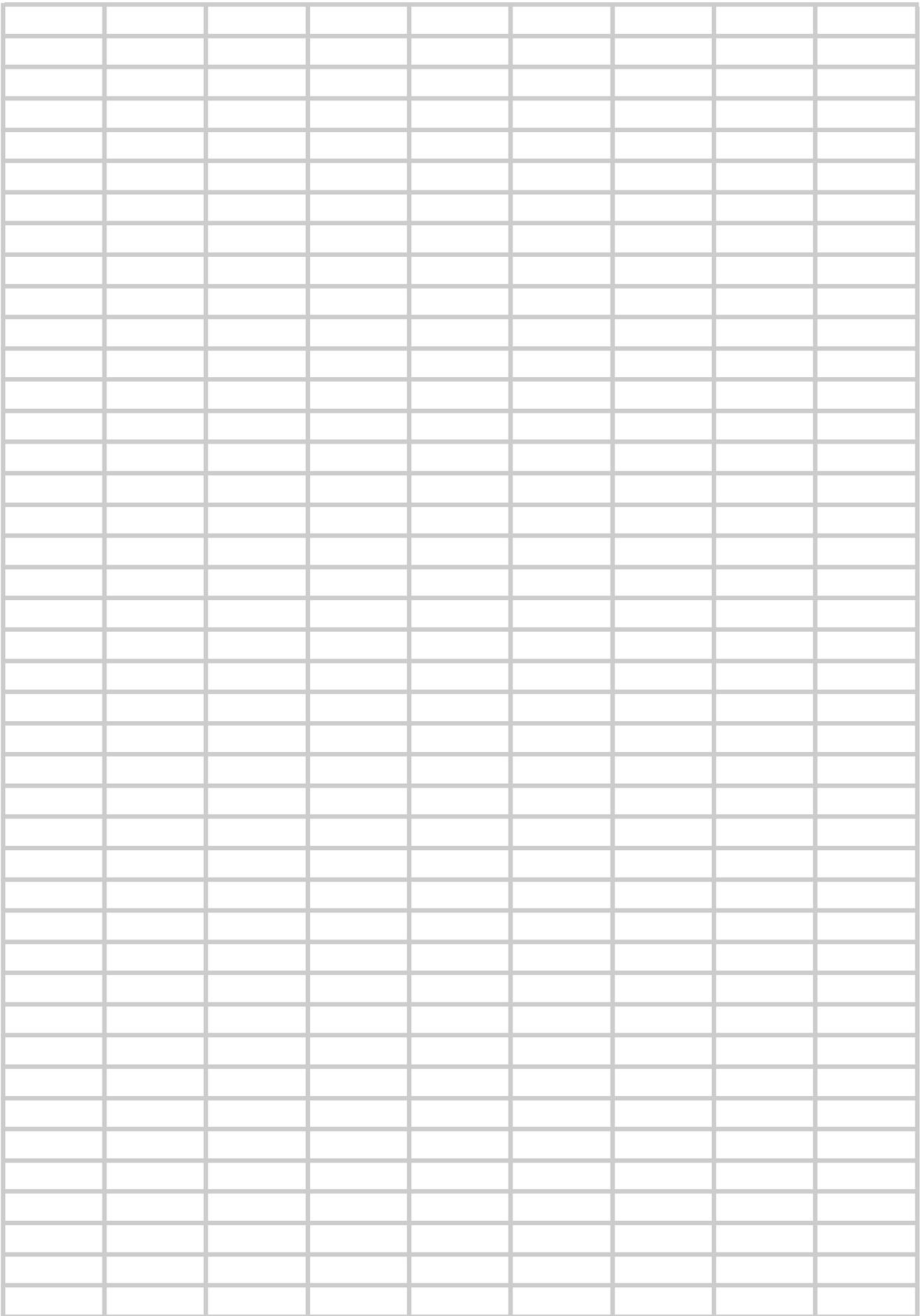


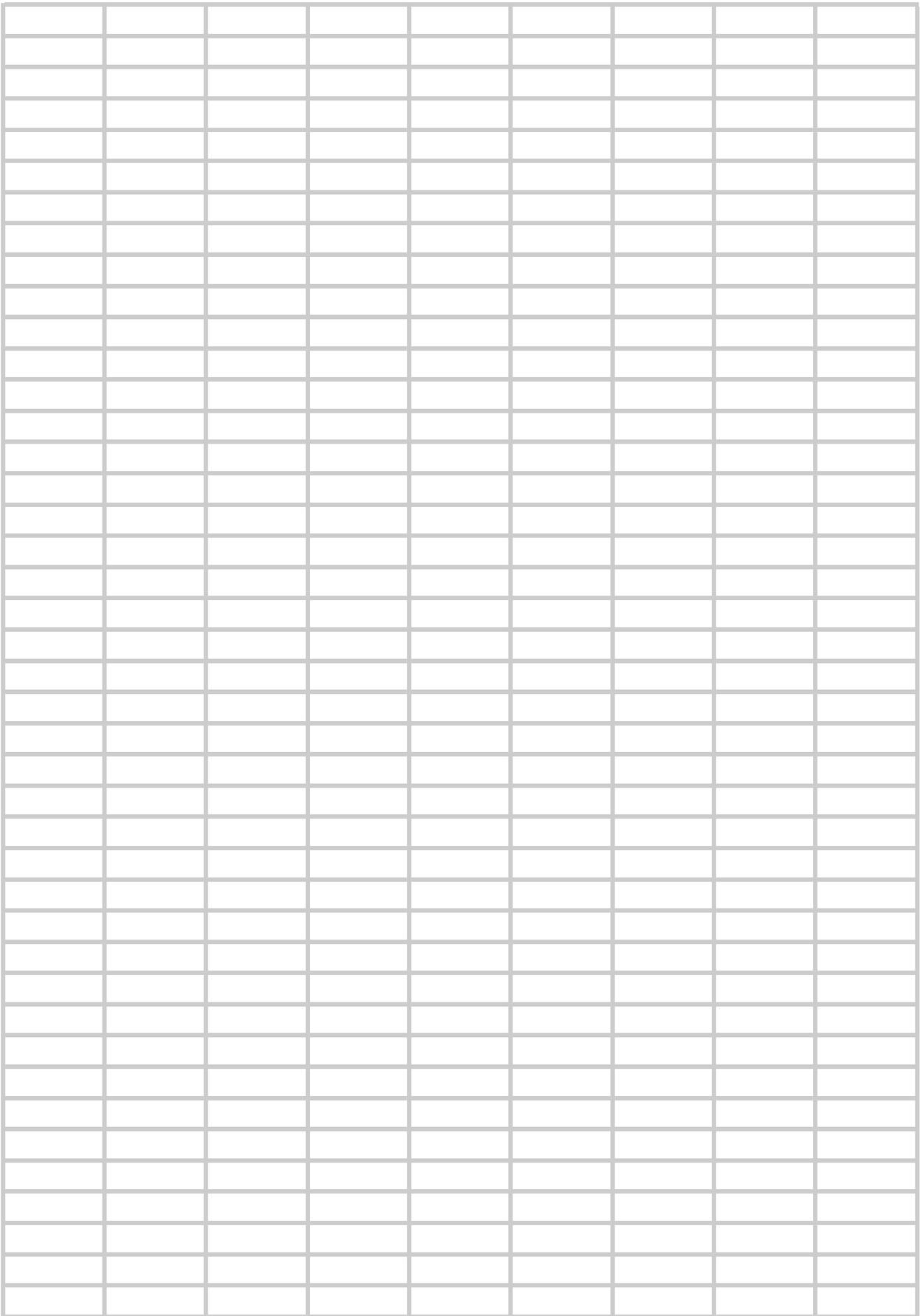


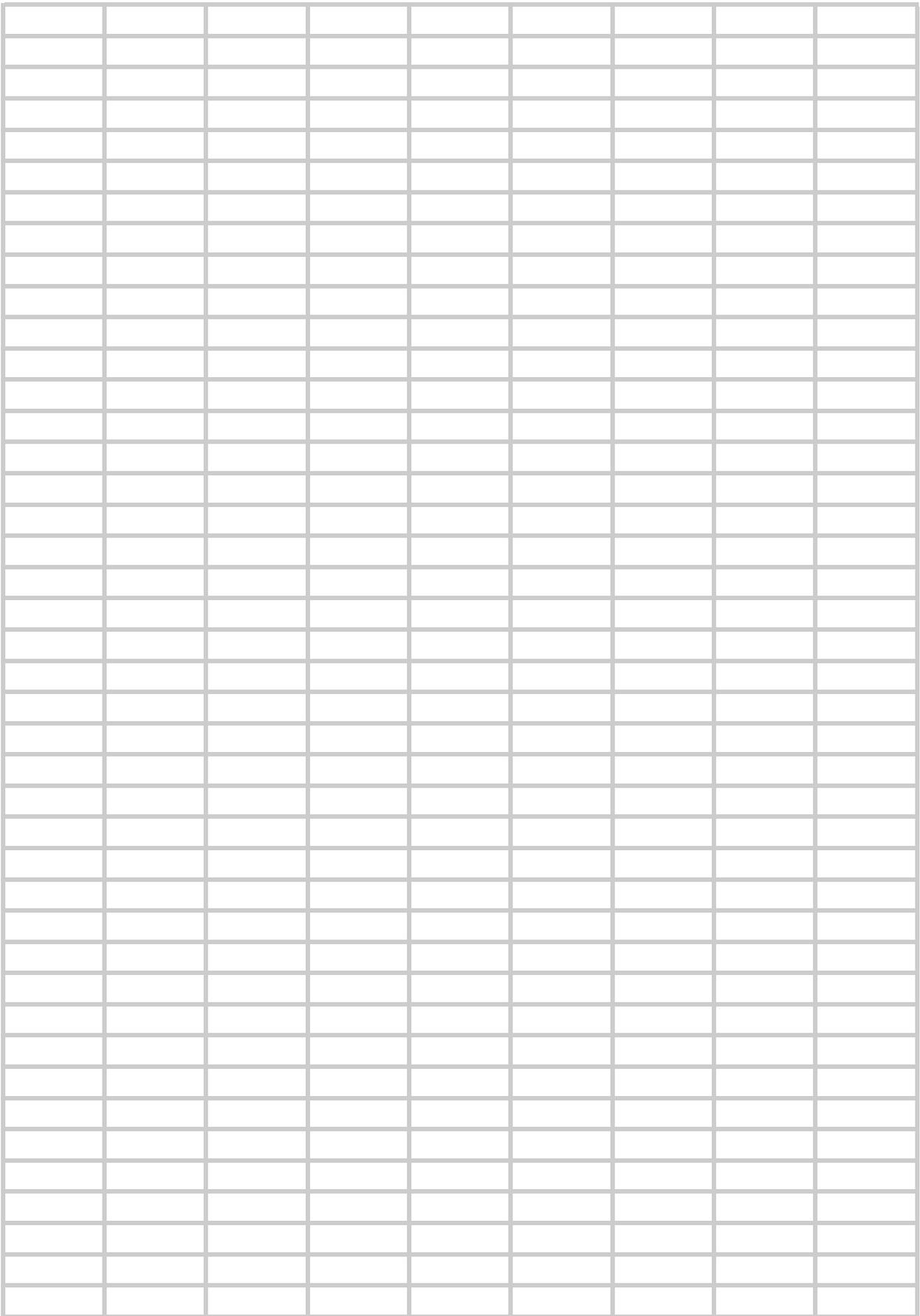


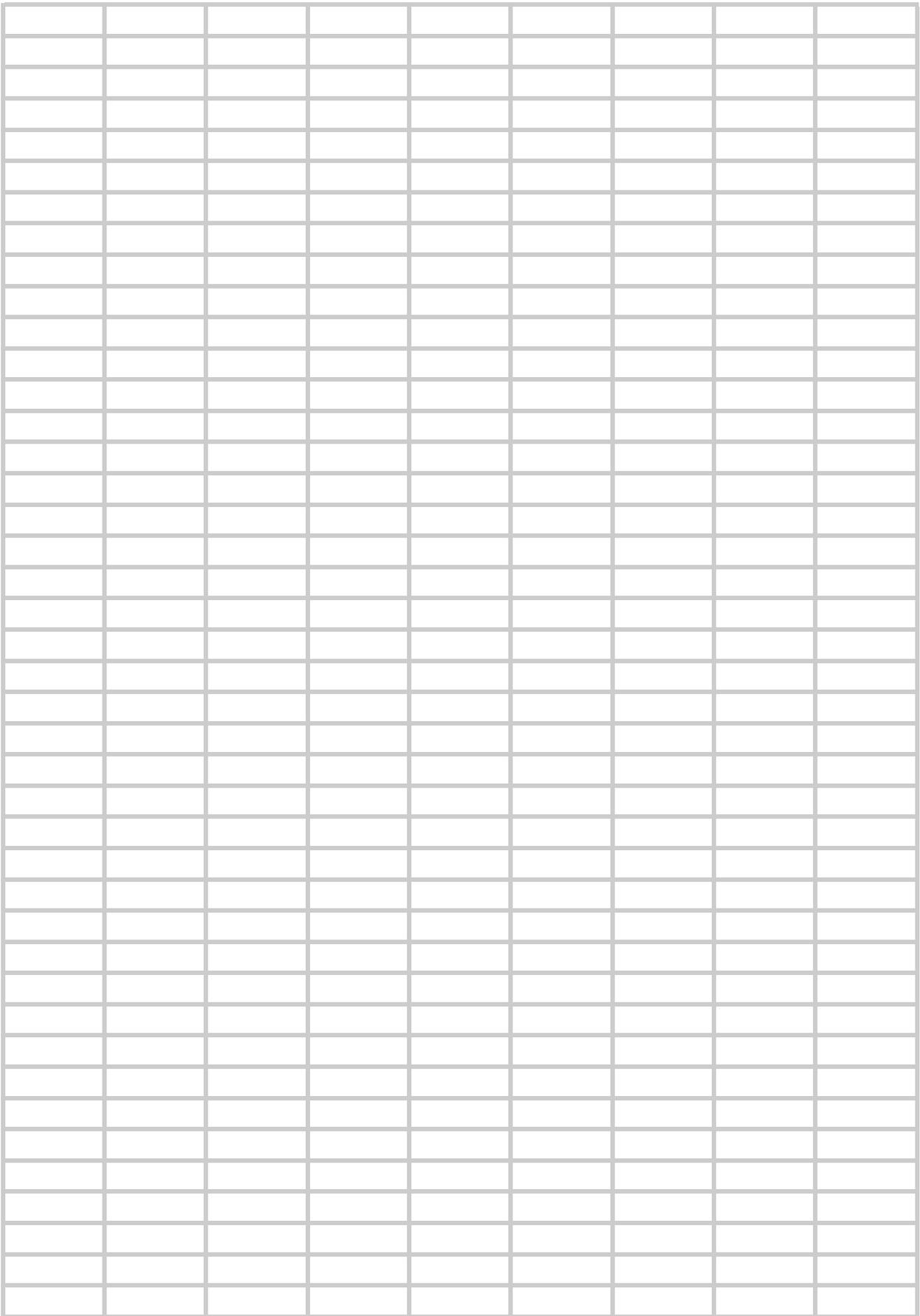


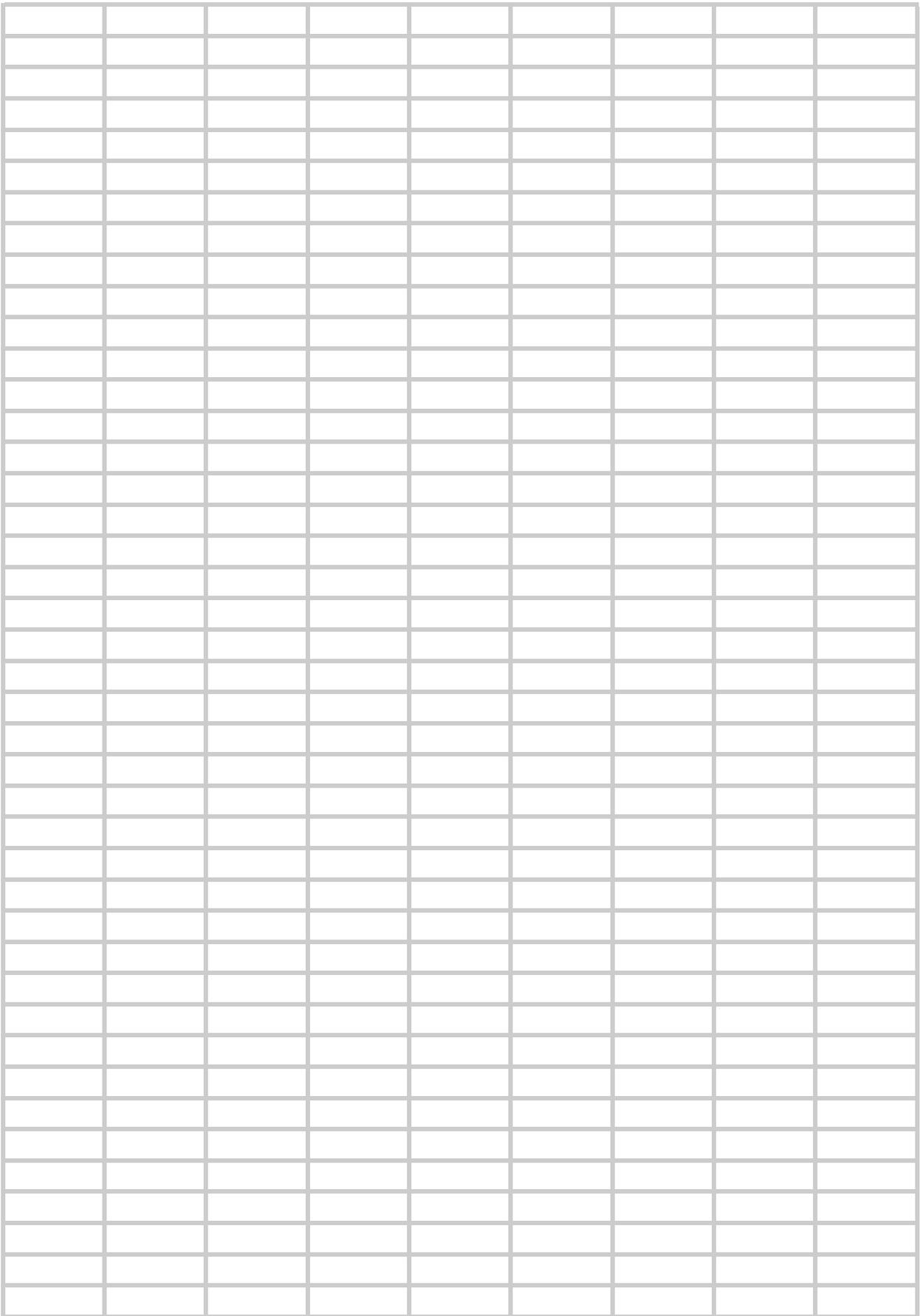


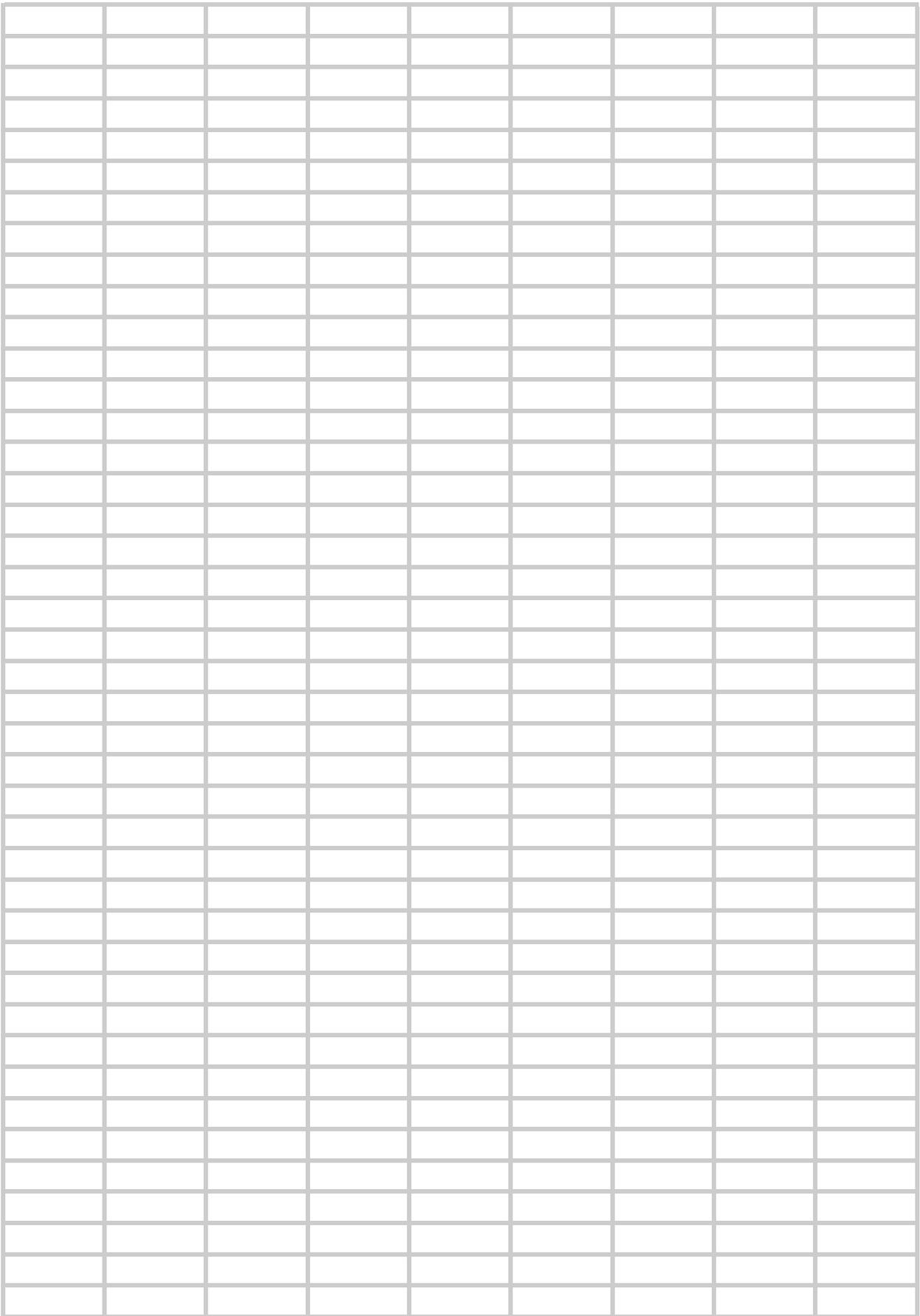


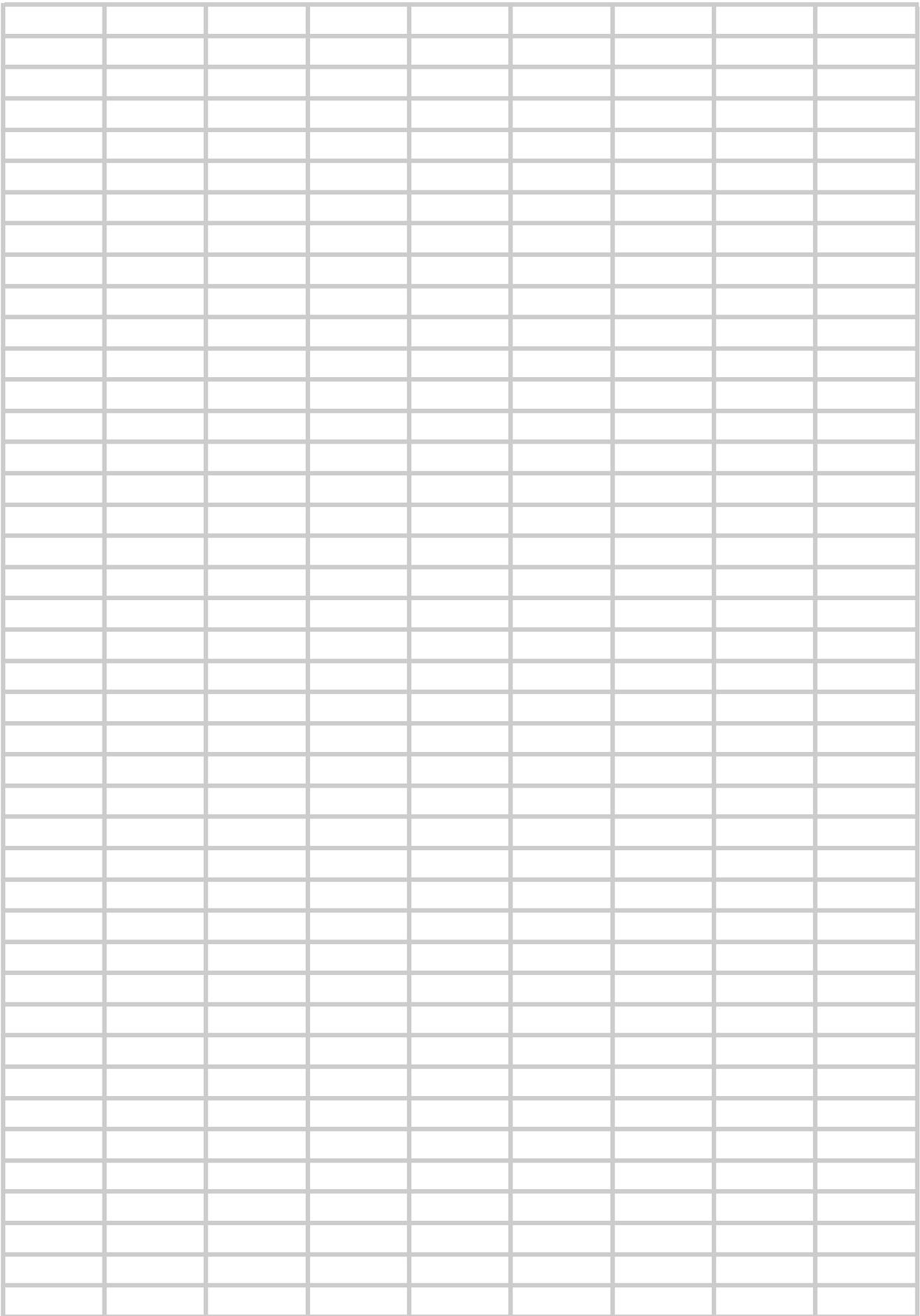


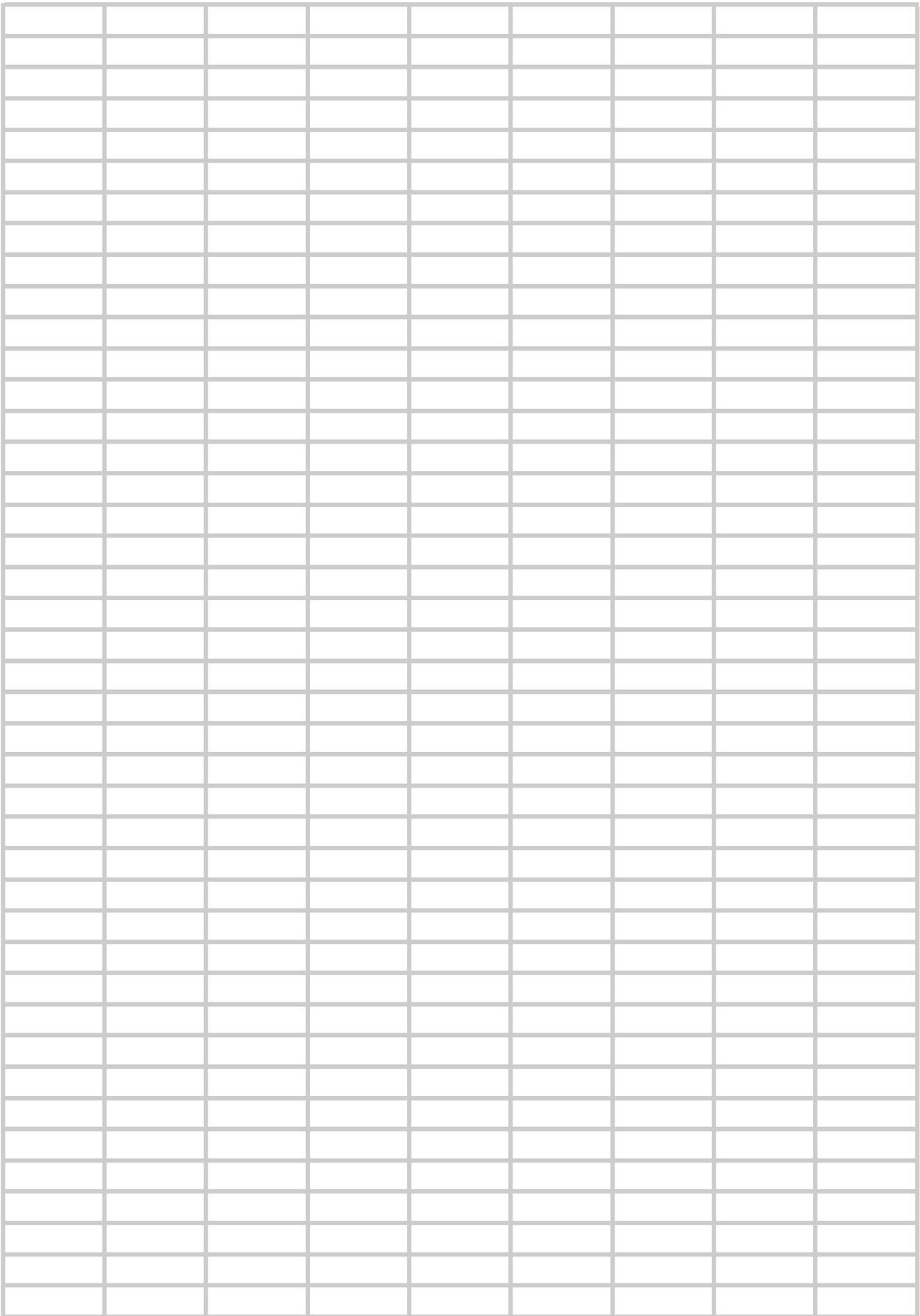


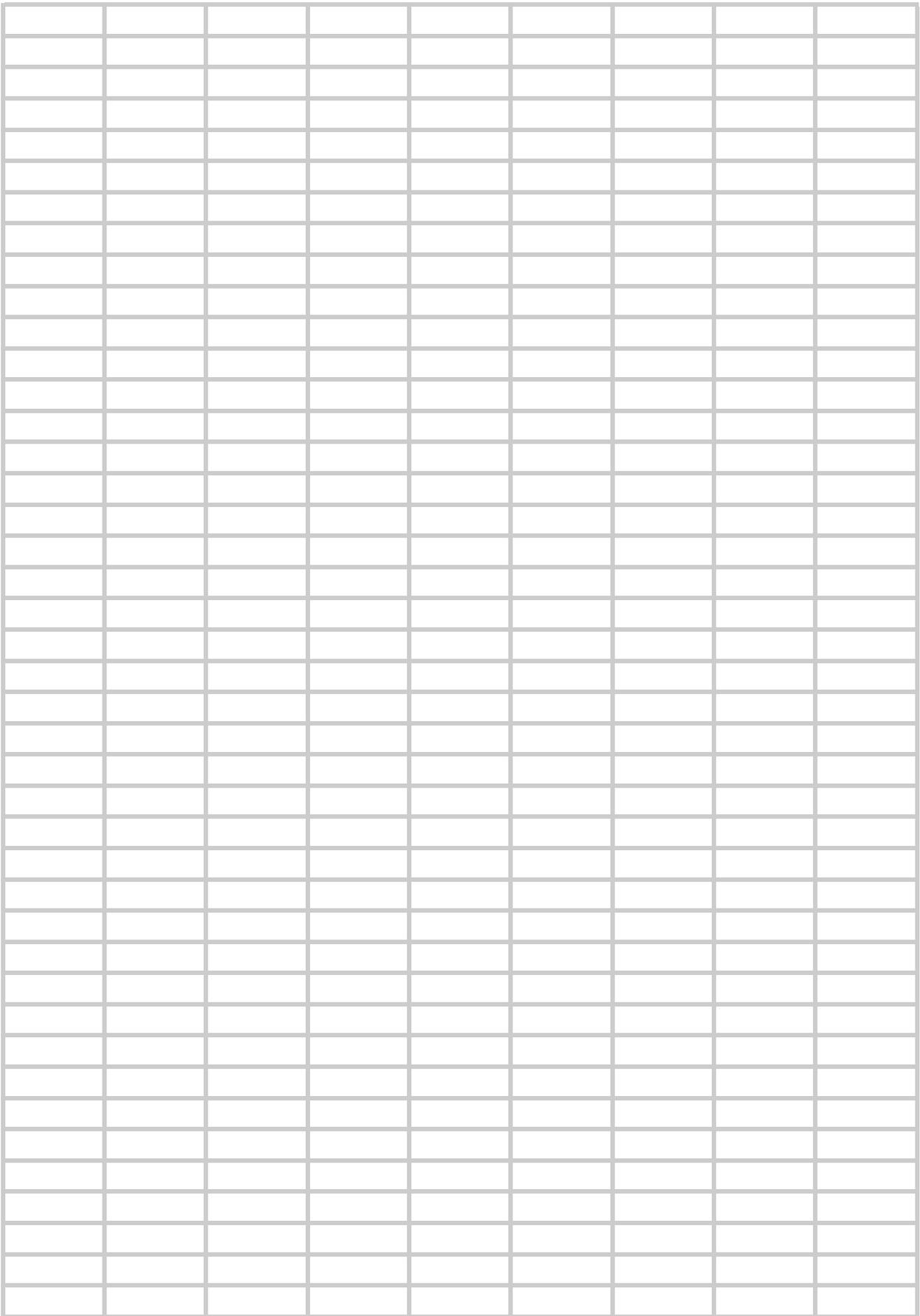


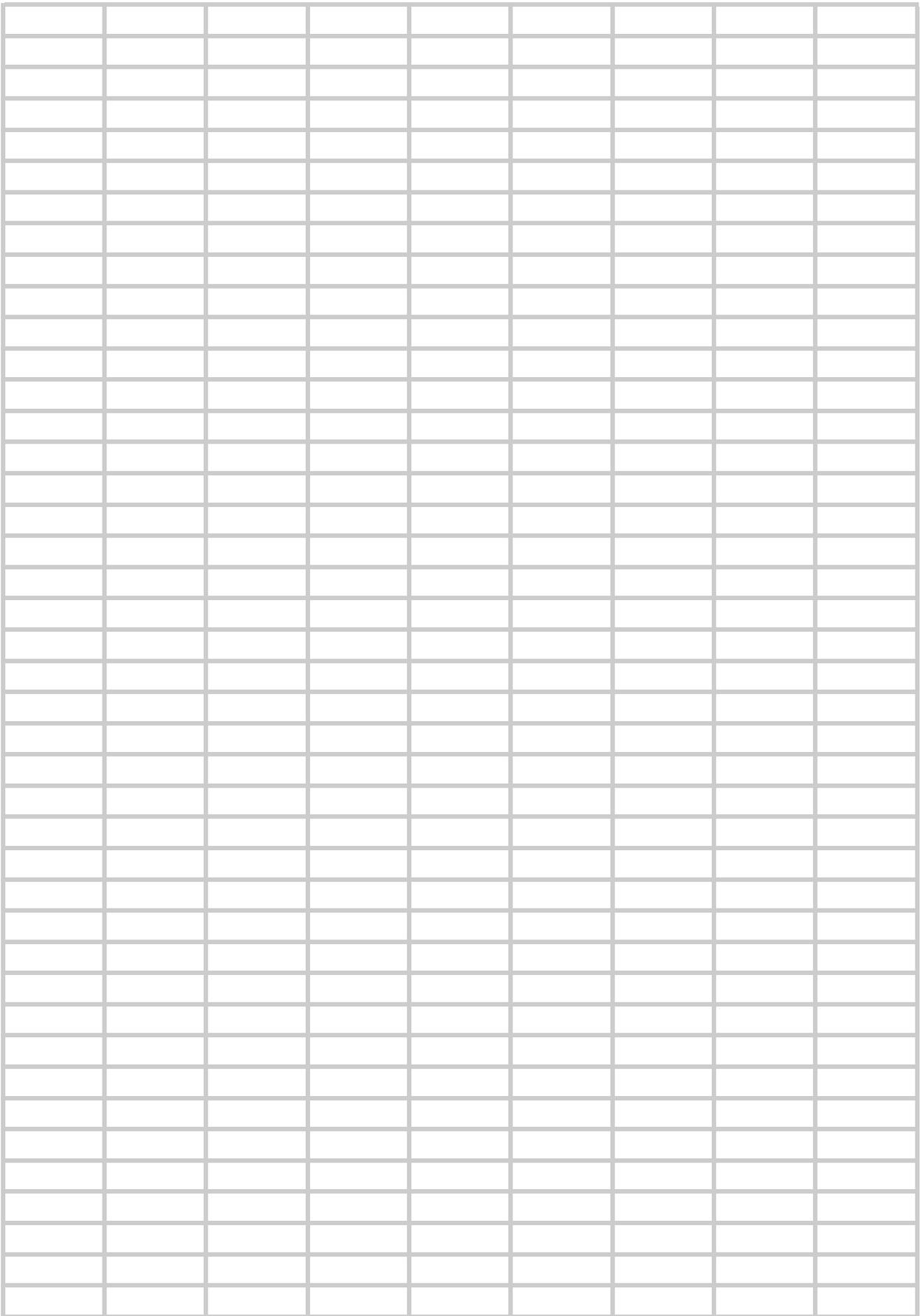


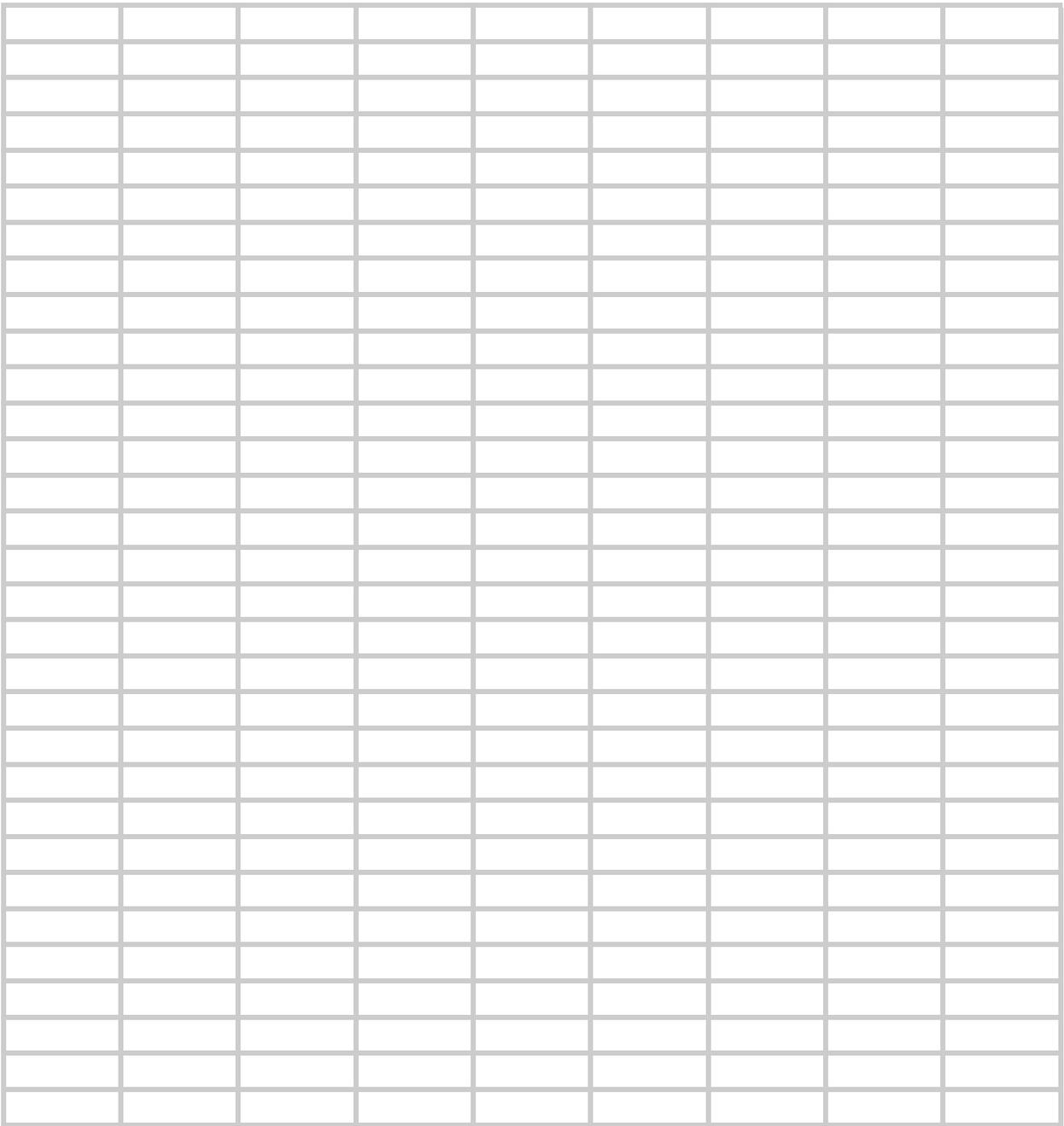




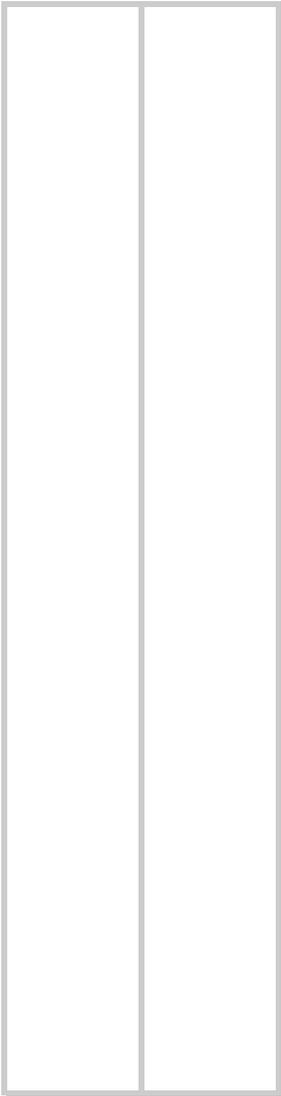








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CODE / THEORY				
	State	CPE	NASCLA	NECA
Electronic Notification	Yes	X	Yes	X
Cost of written exam	\$68	TBD	TBD	TBD
Avg Candidate Score	57.5	65		
Pass Rate	46.5	50	47.06	
Cut Score	75%	75%	70%	75%
Time allotted to take written exam	4:55	4:00	4:30	4:55
Time allotted to take practical exam	2:00	4:00	N/A	N/A
Number of questions on written	130	79	100	130
Number of questions on practical	7	10	N/A	N/A
Frequency of job analysis	6 YR	3 YR	5 YR	1 YR
Frequency of exam review	2 YR	1 YR	1.5 YR	1YR
Size of question bank	476	500	515	224
Avg # of subject matter experts	10	15	12	7
Who can take exam (after eligibility)	Anyone	IEC Member	Anyone	IBEW Member
Testing location	National	Out of State	National	Local

CONTENT OUTLINE - CODE				
	Utah	CPE	NASCLA	NECA
General Info and Definitions	10	10		10
Testing and Troubleshooting			7	
Raceways and Enclosures	8	8		8
Interpreting Plans and Specifications			6	
Basic Electrical Safety			8	
Services, Feeders and Branch Circuits	8	8		8
Overcurrent Protection	8	6		6
General Code Requirements			15	
Conductors & Cables	6	8		8
Grounding & Bonding	8	10		10
Wiring and Protection			18	
Wiring Methods and Materials			16	
Lighting & General Use Equipment	10	7	10	8
Special Occupancies & Equipment	7	5	8	5
Motors & Controllers	8	8		8
Communication System	3	3	2	3
Special Conditions	2	2		2
State Law & Rules	5	5		5

CONTENT OUTLINE - THEORY				
	Utah	CPE	NASCLA	NECA
Voltage	10	N/A	2	10
Current	10	N/A	2	10
Resistance	10	N/A	2	10
Power	10	N/A	2	10
Voltage Drop	10	N/A	2	10

*NASCLA is one exam for Code and Theory