Geometry / Measurement 6 Teacher Notes

Many of these stations have been designed as an assessment tool for the objectives of the new curriculum. However, teachers may choose to use these as introductory activities, practise activities or centre activities.

These stations lend themselves well to the adaptive dimension of the Core Curriculum. See The Adaptive Dimension in the Core Curriculum available in all schools. The document can be ordered from the Book Bureau (#1655). Changes can be made to the context or to the level of difficulty to adapt to the individual needs in your classroom.

Similar stations can be created by using activities from textbooks and other resources. Binders that accompany manipulatives are an excellent source of ready-made activities.

A few excellent resources are:

Name	*Publisher*	*Where to Order*	*Order #*	*Cost*
Pattern Blocks 4-6 (Active Learning Series)	Exclusive	Book Bureau	1668	$27.90
The Geoboard Collection 4-6 (Active Learning Series)	Exclusive	Book Bureau	826	$29.90
The Complete Book of Cube-A-Link 5-8 (Active Learning Series)	Exclusive	Book Bureau	1667	$23.25
Measure It 4-6 (Active Learning Series)	Exclusive	Book Bureau	0087	$31.50
The Puzzling World of Tangrams and Pentominoes	Exclusive	Exclusive	0047	$34.95
Twenty Thinking Questions for Pattern Blocks (3-6)	Creative Publications	Addison-Wesley Publishers	SC5-1-56107-795-X	$30.80
Twenty Thinking Questions for Geoboards (3-6)	Creative Publications	Addison-Wesley Publishers	SC5-1-56107-799-2	$30.80
Twenty Thinking Questions for Centimetre Cubes (3-6)	Creative Publications	Addison-Wesley Publishers	SC5-1-56107-796-8	$30.80
Connections Grade 6	Creative Publications	Addison-Wesley Publishers	SC5-0-88488-773-1	$30.75
Pentominoes Activities Lessons and Puzzles	Creative Publications	Addison-Wesley Publishers	SC5-0-88488-374-4	$44.80
Moving-On (4-6) Pattern Blocks	Creative Publications	Addison-Wesley Publishers	SC5-0-88488-672-7	$35.70

Moving-On (4-6) Tangrams	Creative Publications	Addison-Wesley Publishers	SC5-0-88488-671-9	$35.70
Moving-On (4-6) Geoboards	Creative Publications	Addison-Wesley Publishers	SC5-0-88488-670-0	$35.70

NOTE: Check Addison-Wesley catalogues for ready-made job cards for many of the manipulatives including geoblocks. Exclusive also produces new binders every year. The *Book Bureau* will soon have many of these resources. They are often cheaper there and there are no shipping charges.

Getting ready . . .

Station #1 If possible purchase a class set (or at least a few for group work) of circular protractors. These help students understand that there are 360˚ in a circle. They are available through "Exclusive" (#2910 for about $2.50)

You can "make" protractors by photocopying an original one, cut and paste it several times on sheet of paper and then making an overhead transparency. Individual protractors can then be cut out for use. You may have to experiment with the first copy until the numbers are clear by adjusting the lighter to darker feature on your photocopier. A very inexpensive way to make protractors!!!

Station # 2 It is a good idea to purchase a few "good" geometry sets for centres. Making as many materials as possible available for the students is a good way to reduce disruptions in the class.

Station # 4 Paper folding is a motivational strategy for geometry. Have paper folding books available for the students. To create more interest, save used interesting paper (colored - fluorescent etc.) throughout the year to use for all paper folding activities.

Station #7 Primary teachers often have pictures of road signs. Driver training instructors should also be able to supply with these.

Station #12 Art galleries and book stores often have calendars, wrapping paper, T-shirts etc. featuring the works of M.C. Escher.

Puzzles are available at stores like "Dufferin's" and other gaming stores.

Public libraries have books about this author. He has a very interesting life story. Most of his works evolve around mathematical concepts and geometric theorems and yet Escher himself admits to doing very poorly in mathematics.

A study of M.C. Escher integrates the visual arts strand in arts education with the geometry strand in mathematics. It also helps students realise the beauty of mathematics in the real world.

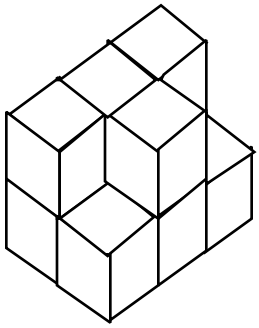
Station #20 Have students draw a vertical and horizontal line on their square before cutting. This will help them align the piece they have cut. It is important that the slide is straight up and down.. Some teachers copy a grid on manila tag or have the students glue a grid paper on manila tag before starting.

Station #21 Geometric shapes can be purchased from most companies. They come either in plastic or in wood. Collect boxes of various shapes. (Chocolates, Toblerone bars, OXO cubes, toothbrush boxes, cubic boxes (ornaments at card shops), hat boxes, cookie tins, etc.)

Many-sided dice come in many polyhedron shapes.

Station #22 Use centimetre cubes to make several constructions for this centre.

eg.



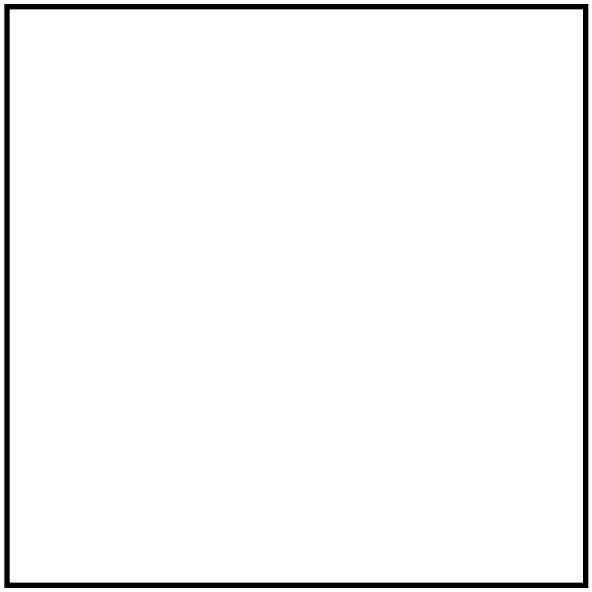
Station #24 Provide several strips of different lengths. For longer ones use adding machine tape, pieces of wood such as baseboards or old hockey sticks, ribbon, wall paper boarders, old films, etc.

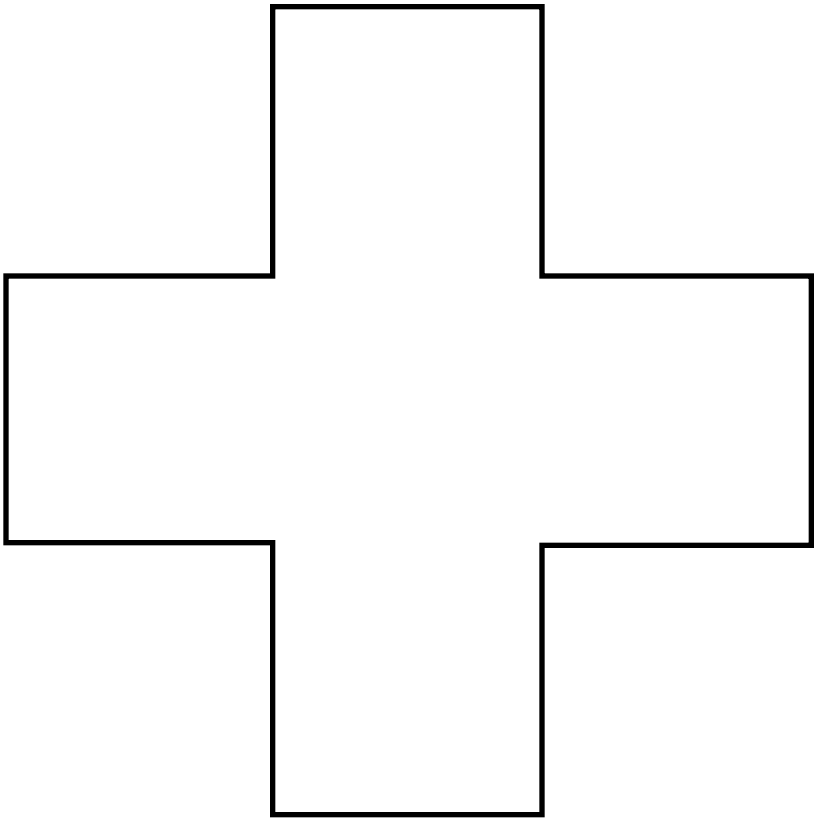
Station #27 At this grade level students only need to recognize that the circumference is about three times the diameter. Some will recognise and remember the value of "π", however, it more important that they understand the concept and estimate their answers.

Station #29 Students will need to use the "flats" in this activity.

Geometry/Measurement Grade 6

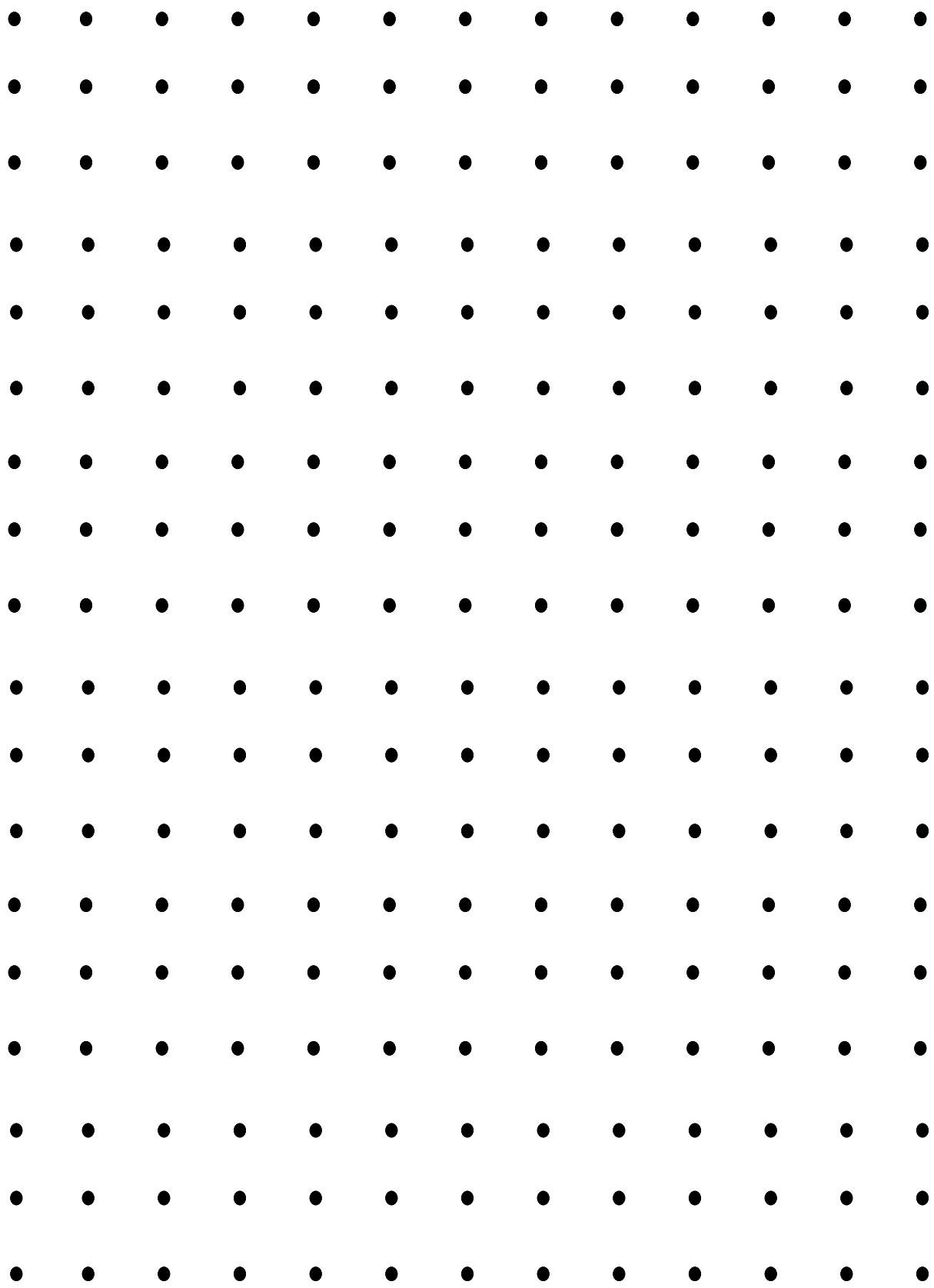
Station # 8



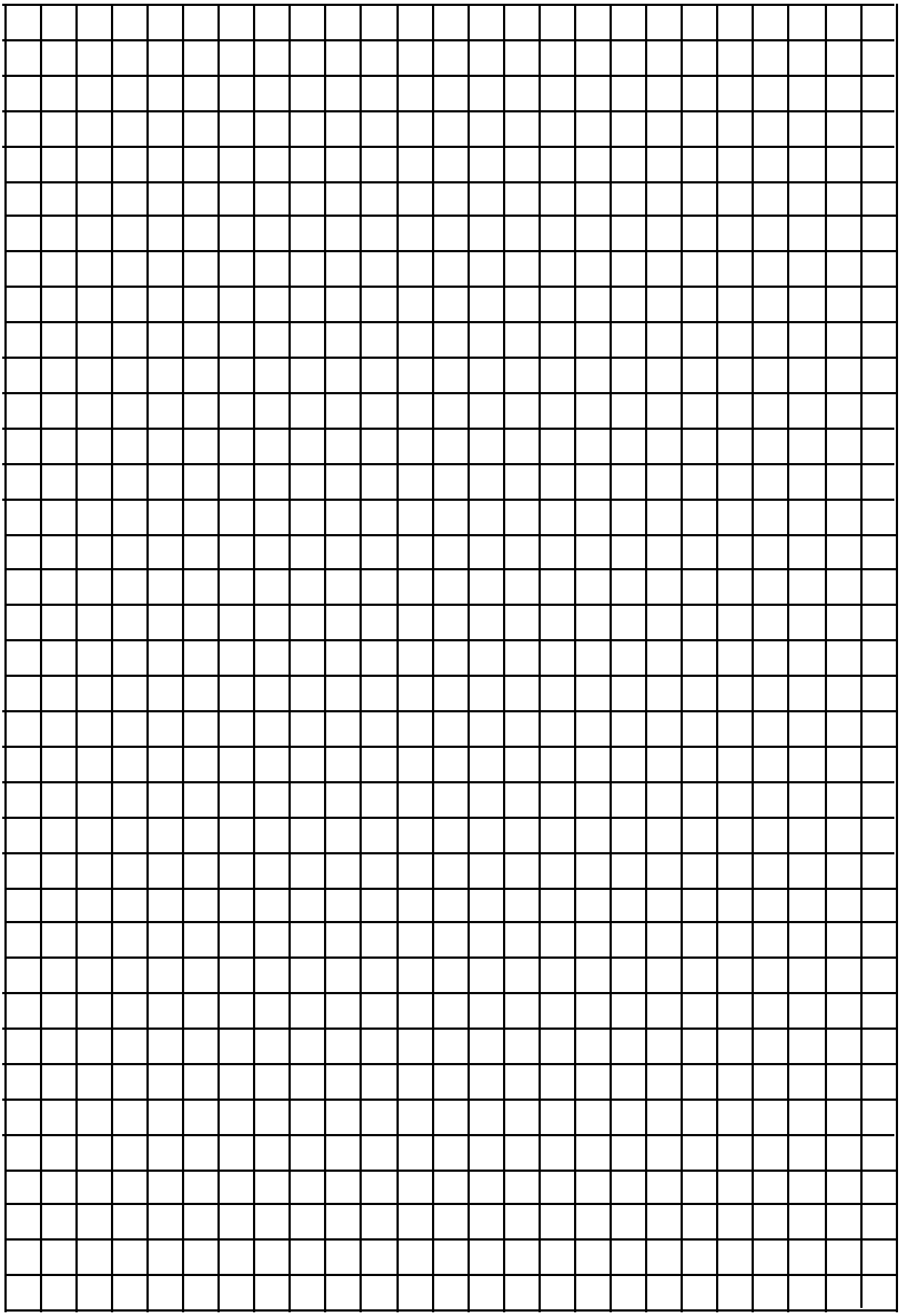


Geometry/Measurement Grade 6

Station # 9

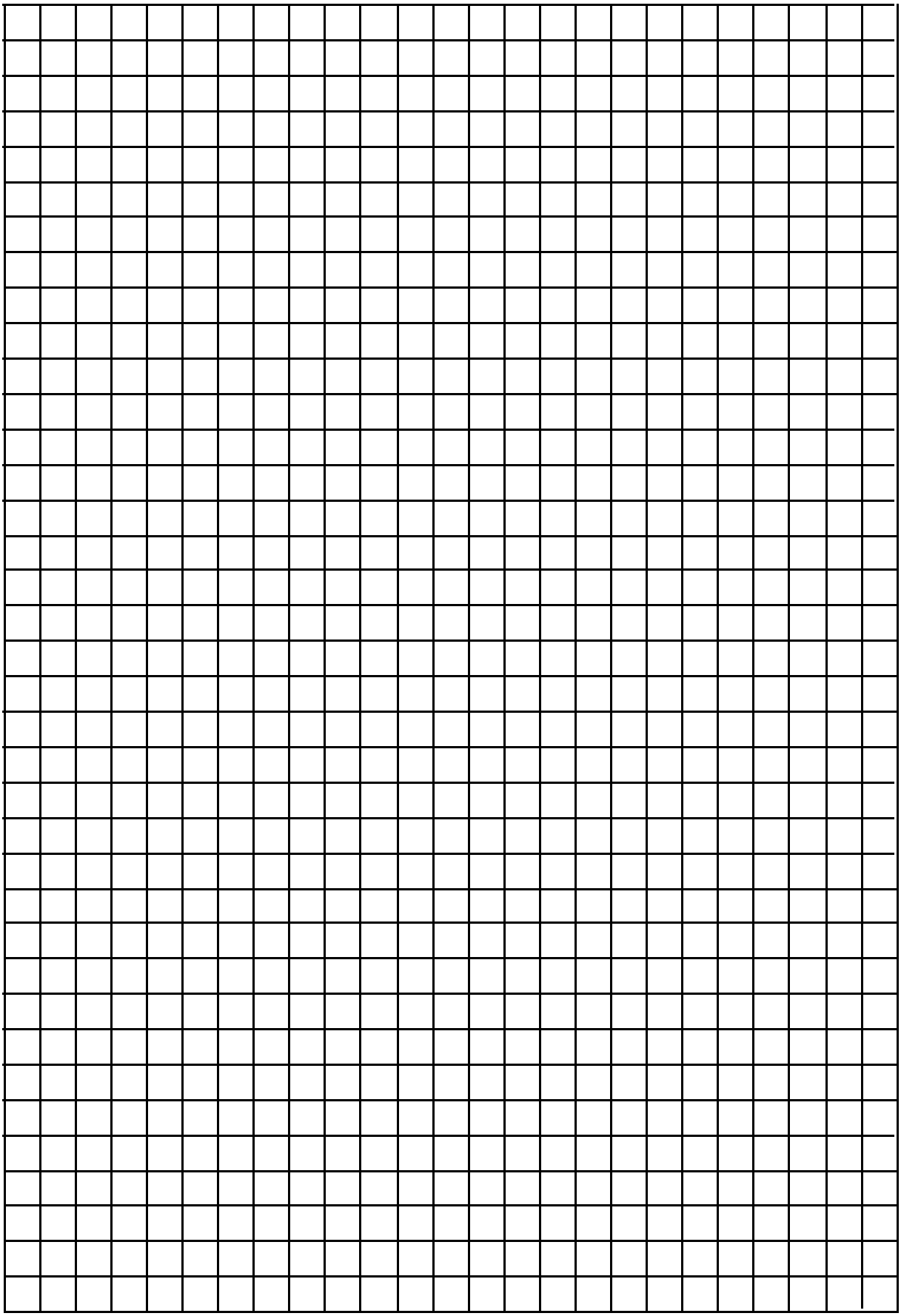


Geometry/Measurement **Grade 6** **Station # 10**



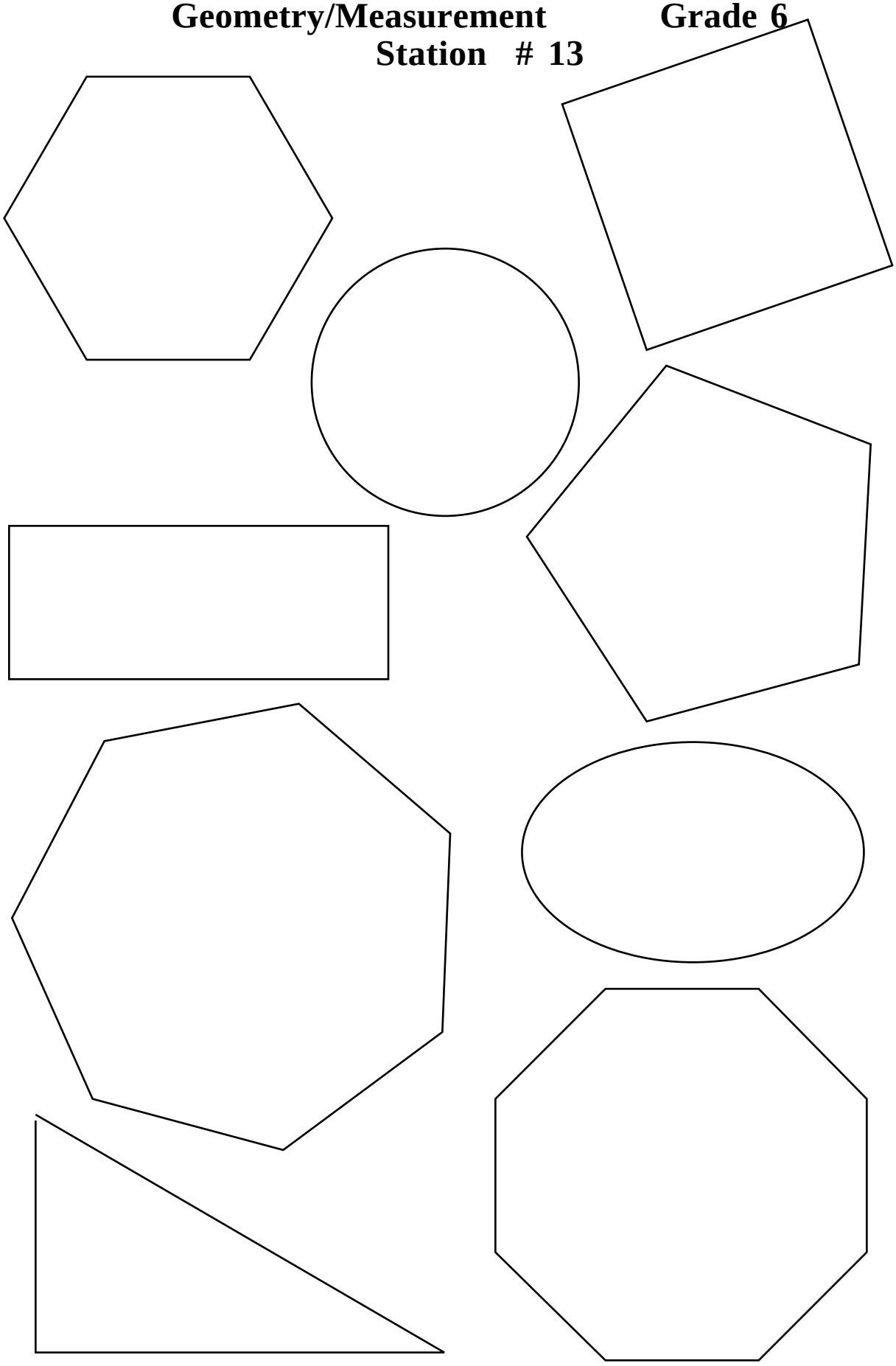
Geometry/Measurement Grade 6

Station # 11

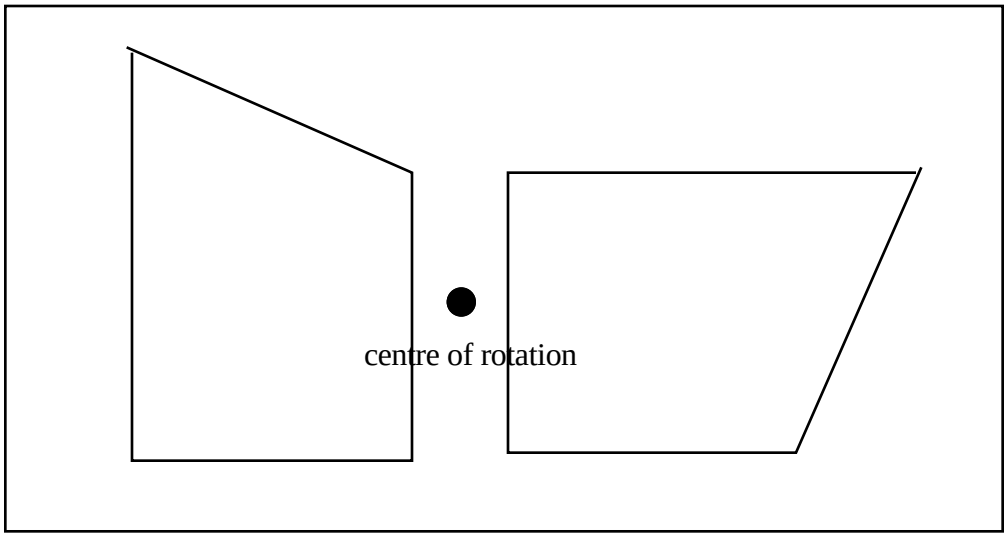


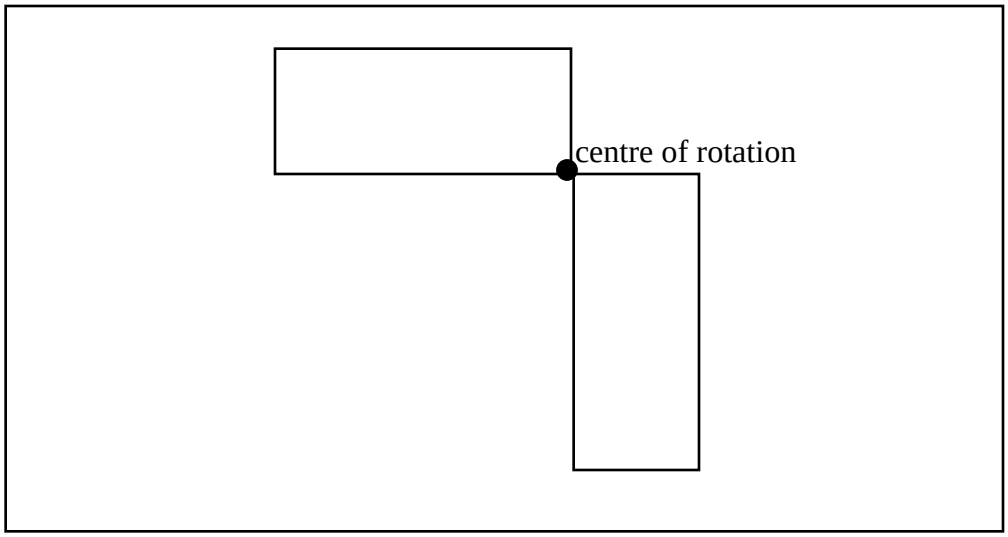
Geometry/Measurement **Grade 6**

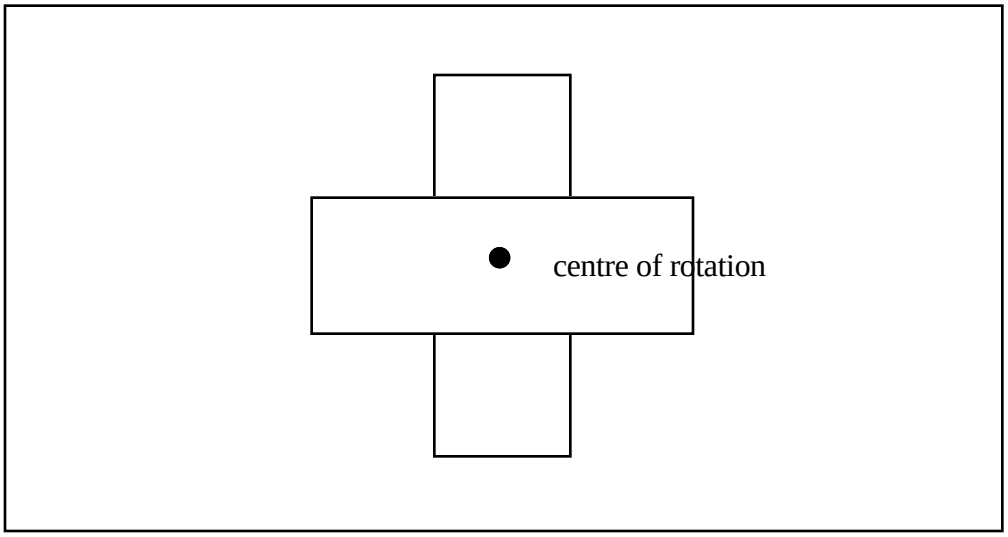
Station # 13

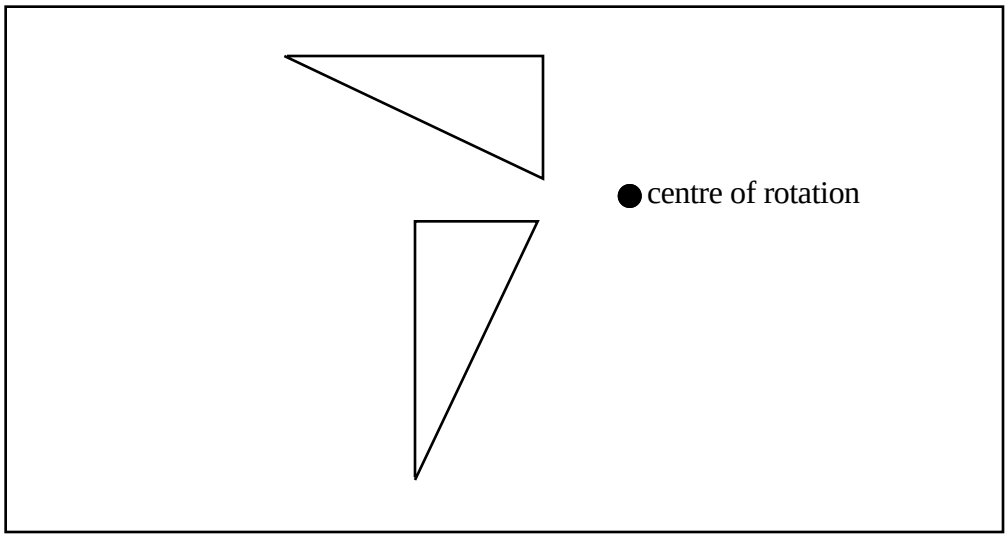


Geometry/Measurement Grade 6
Station # 14

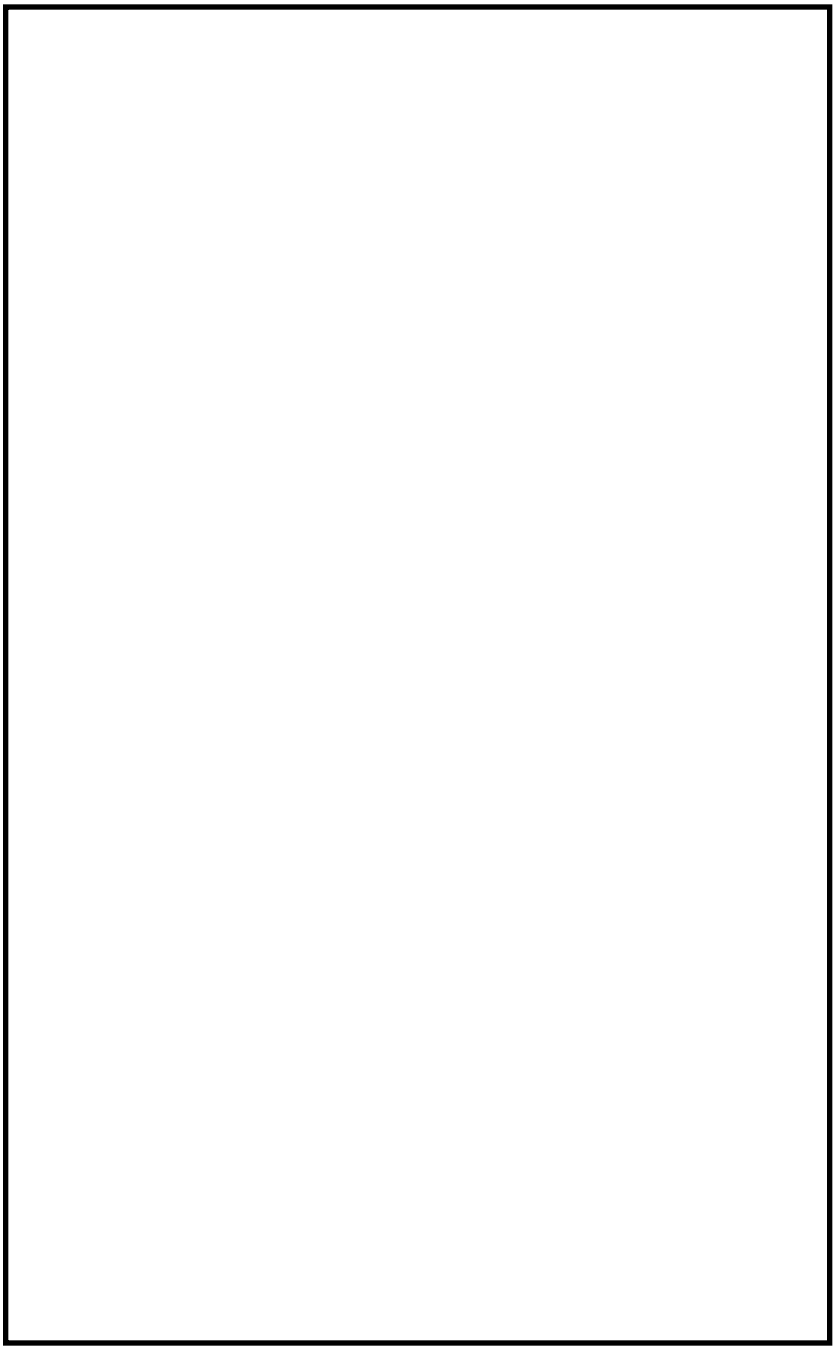







centre of rotation

Geometry/Measurement Grade 6
Station # 17

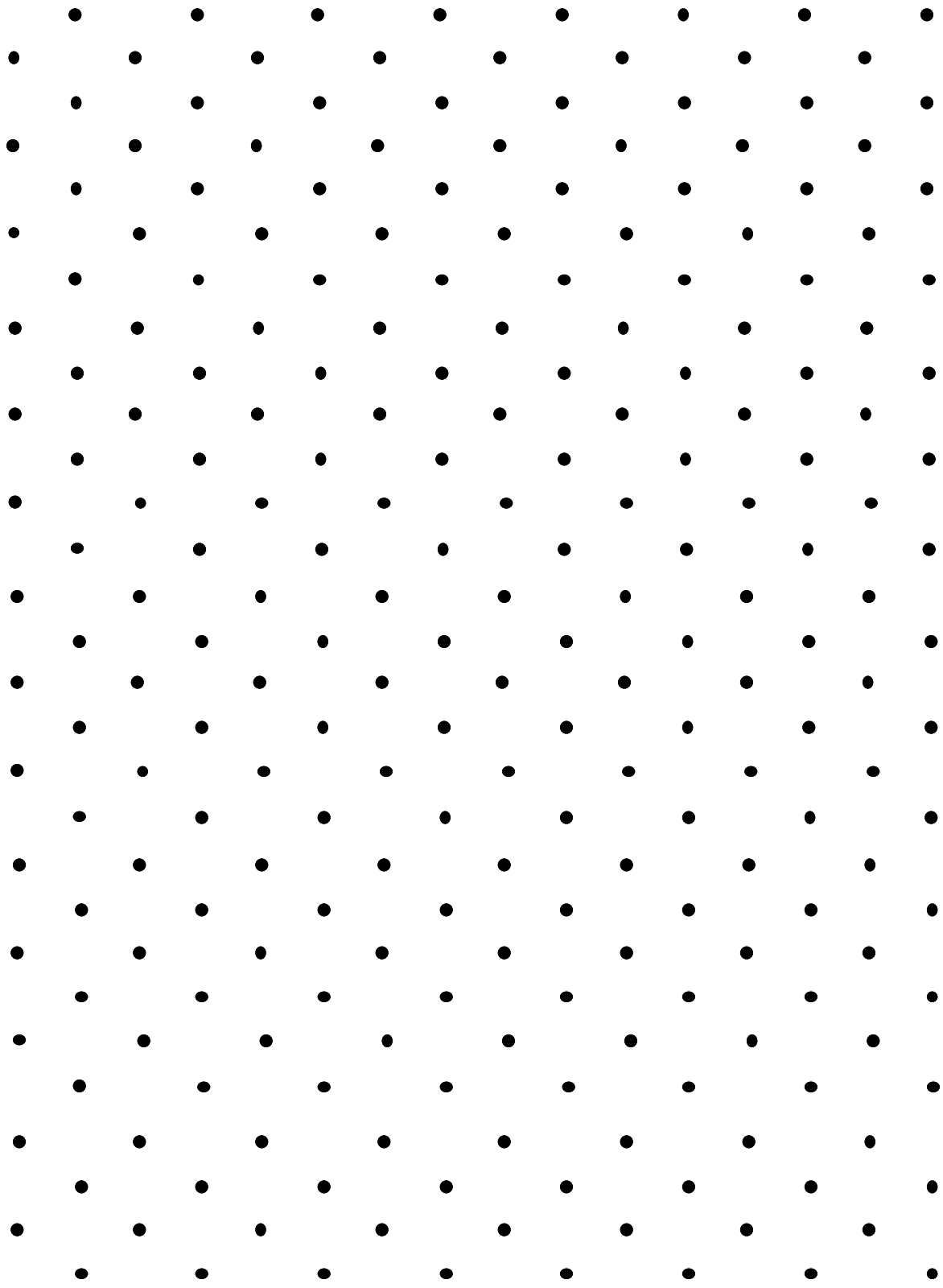


Geometry/Measurement Grade 6
Station # 21

3-dimensional object	number of faces	number of edges	number of vertices
cube			
rectangular prism			
triangular pyramid			
square pyramid			
tetrahedron			

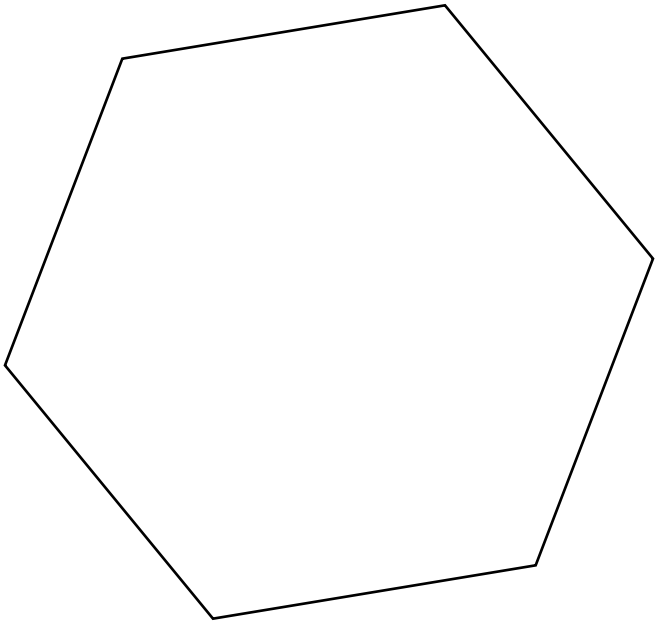
Geometry/Measurement Grade 6

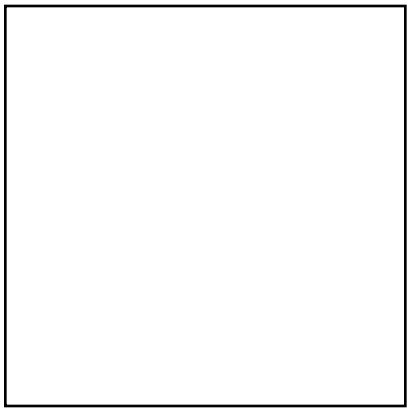
Station # 22

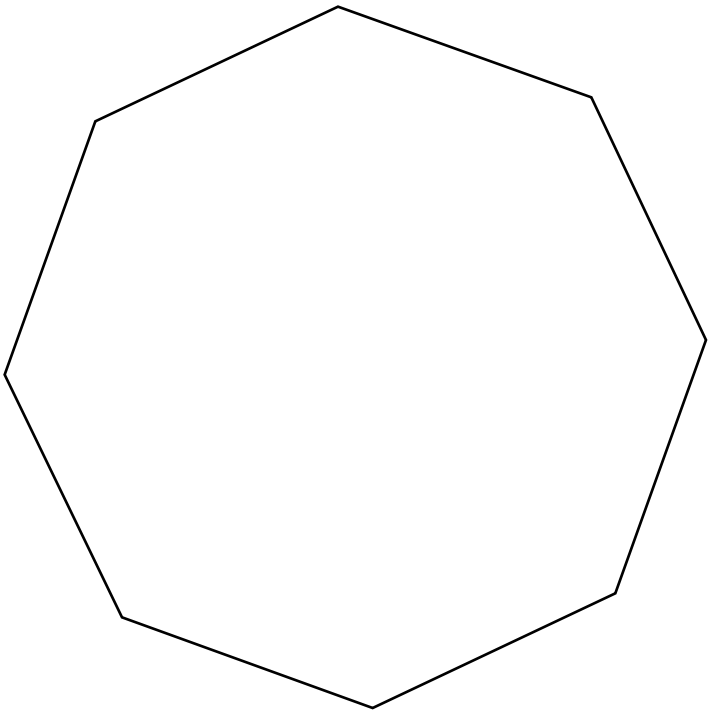


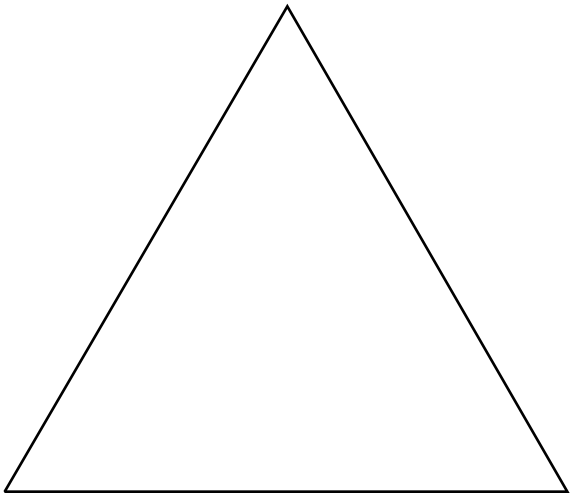
Geometry/Measurement Grade 6
Station # 25

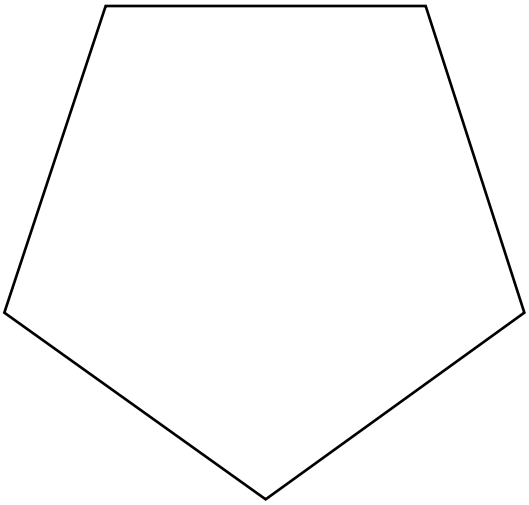
REGULAR POLYGONS





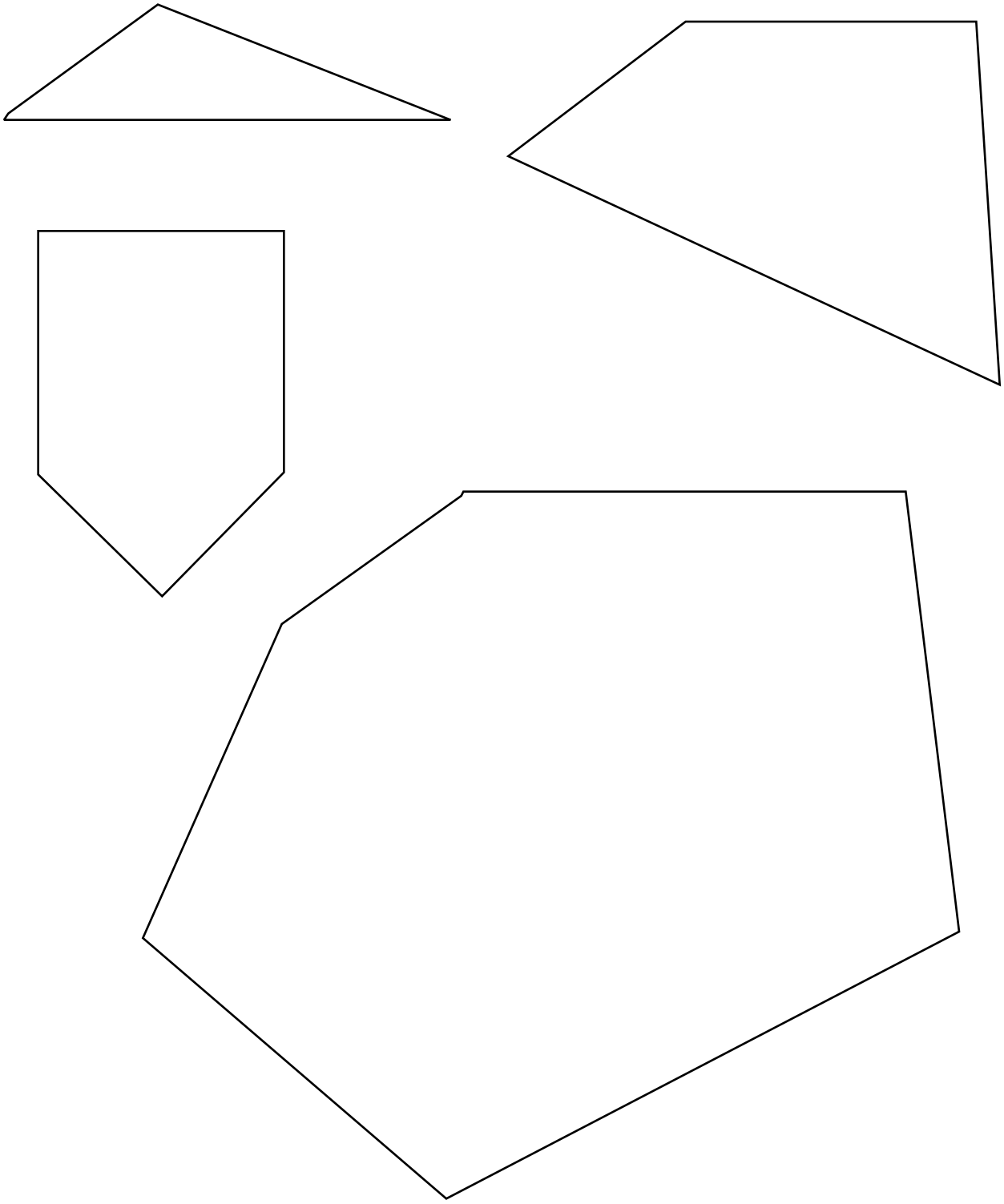




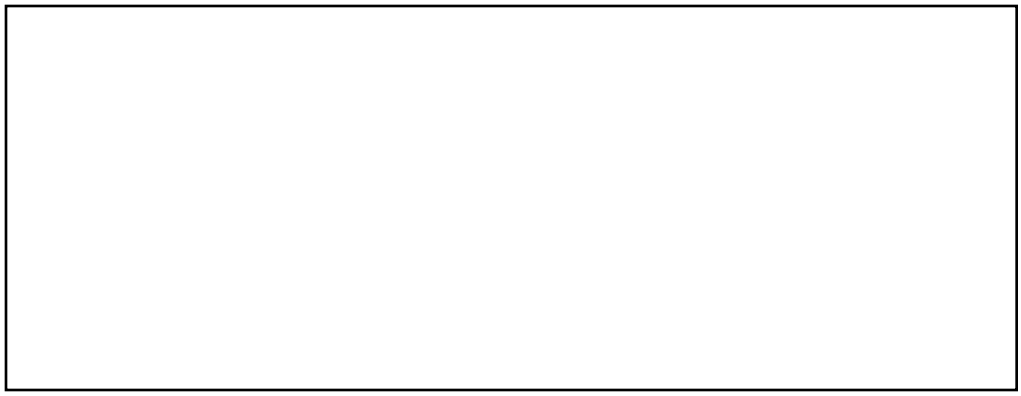


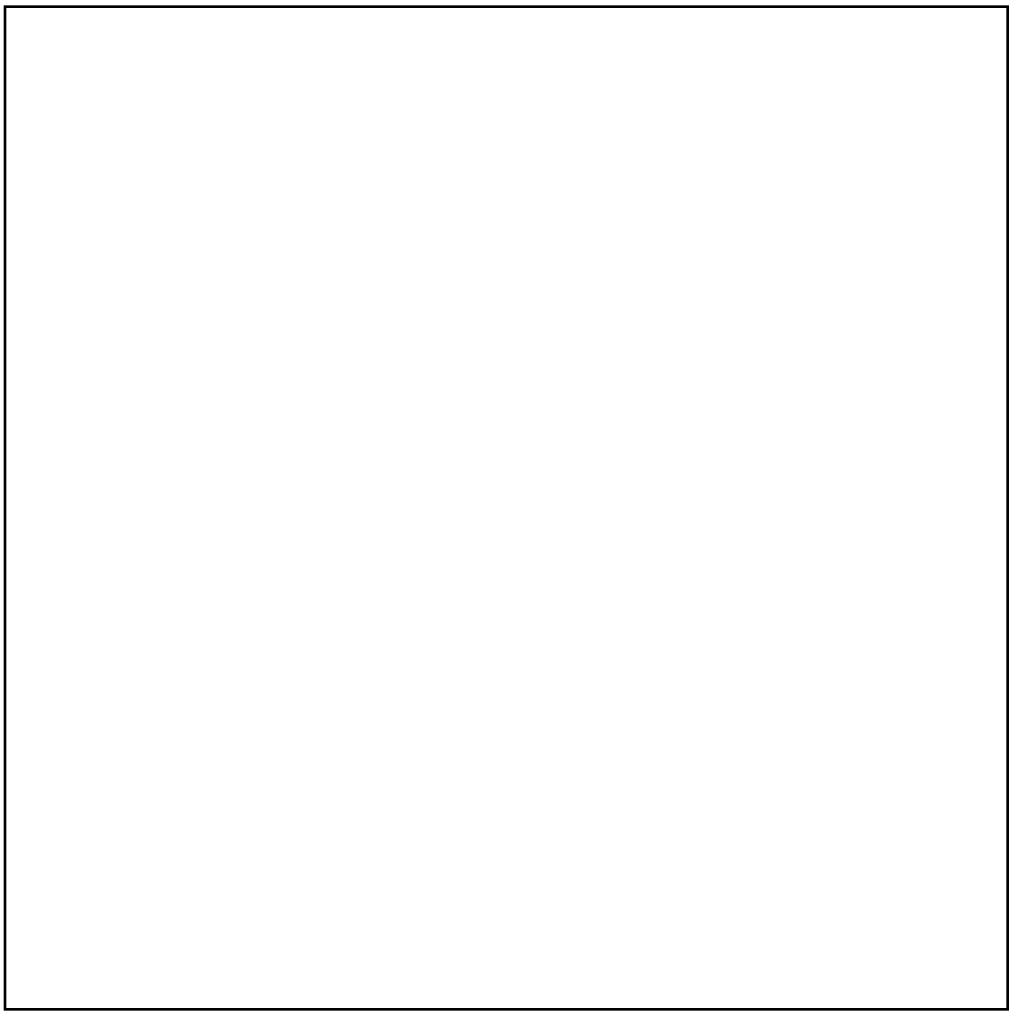
Geometry/Measurement Grade 6
Station # 25

IRREGULAR POLYGONS

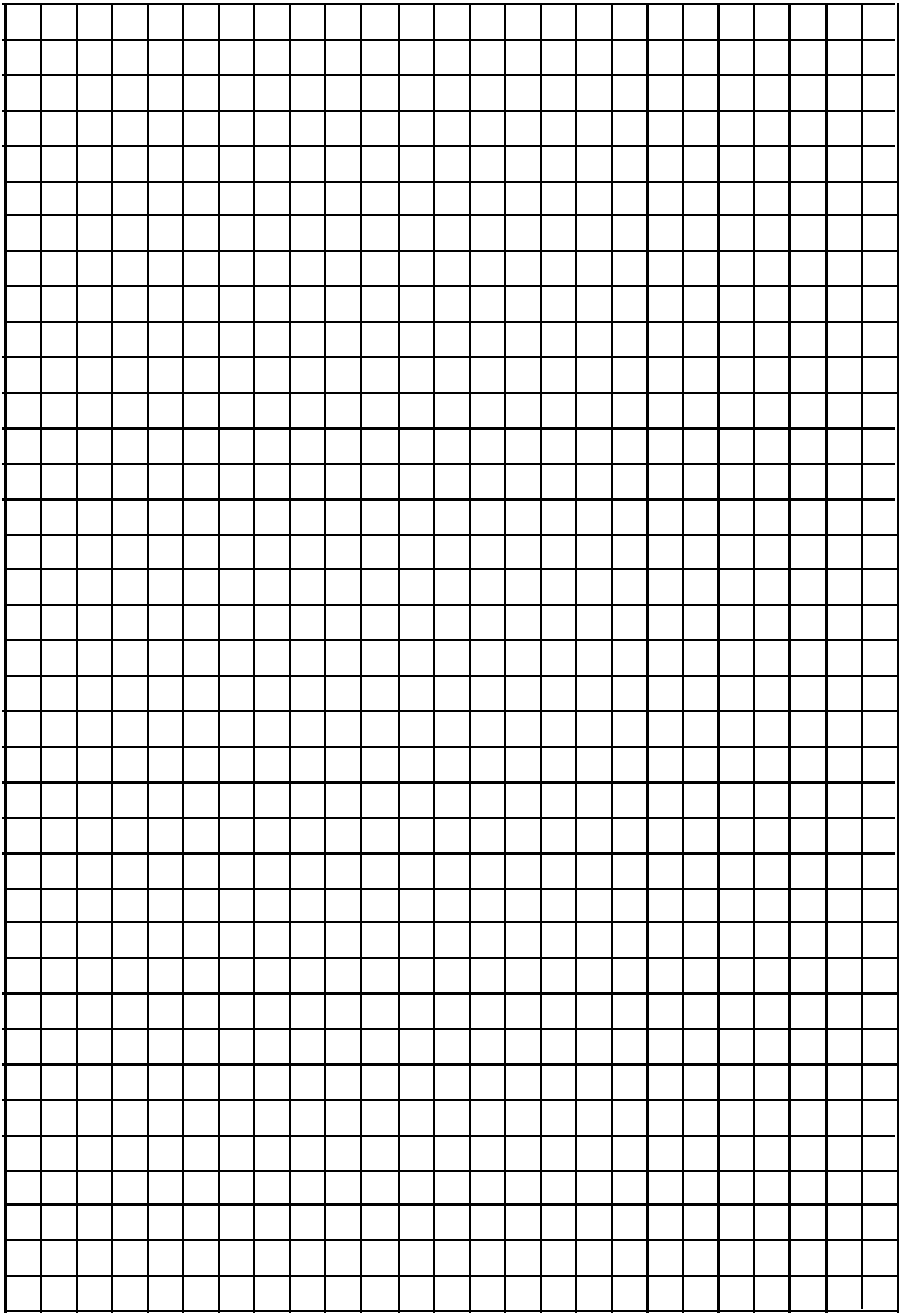


Geometry/Measurement Grade 6
Station # 29





Geometry/Measurement Grade 6
Station # 30



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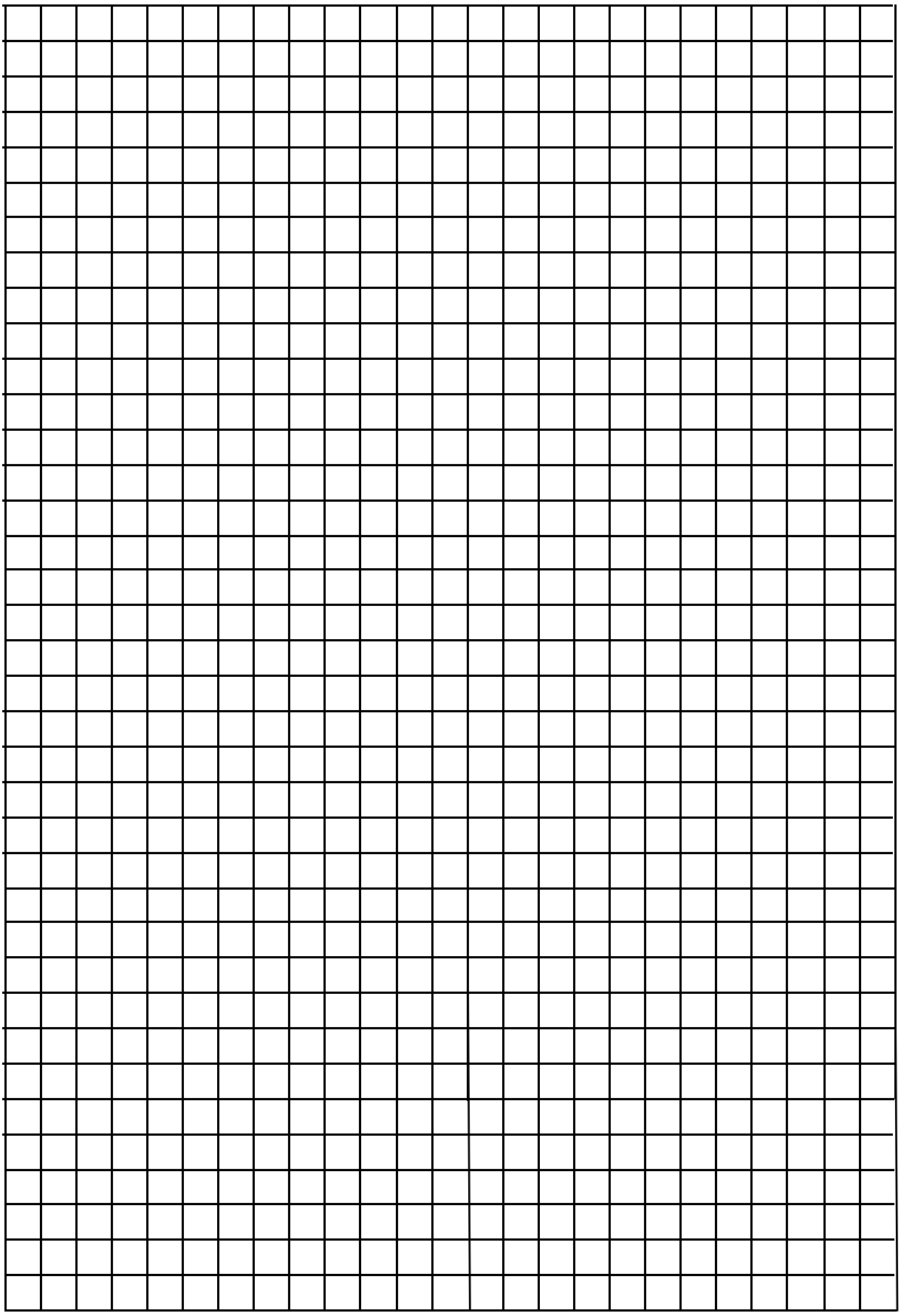
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