

1. Geometry/Measurement

Grade 9

Angles, Lines & Line Segments
G/M-1e

Materials: small rectangle or square of colored paper
mira
Geometry Set
cardboard strips

Your friend call you over the telephone and says,
“How can you draw complementary angles”.

You reply, “Get your _____ and
follow these steps.”

1. Choose a manipulative to replace the above blank and write the rest the conversation.
2. Draw your construction according to your reply.
3. You have completed the instructions and your friend says, “Yes, but how do you know that they are complementary?” Write what you could answer your friend.
4. Is it possible to draw the following angles? If yes, draw them. If no, explain why it is not possible.
 - a) Two adjacent obtuse angles that are complementary.
 - b) Two adjacent angles, one acute and one obtuse that are complementary.
 - c) Two adjacent reflex angles that are complementary.
 - d) Two adjacent congruent angles that are complementary.
 - e) Three adjacent angles that are complementary angles.
 - f) Two complementary angles who together are congruent to a reflex angle.

When you have completed this station,
place answer sheet in your portfolio

Label your portfolio entry.
Please tidy up the station.

2. Geometry/Measurement

Grade 9

Angles, Lines & Line Segments
G/M-1e

Materials: small rectangle or square of colored paper
mira
Geometry Set
cardboard strips

1. Use one or more of the above materials to draw three adjacent angles that are supplementary.
2. How do you know that angles are complementary?
3. Is it possible to draw the following angles? If yes, draw them. If no, explain why it is not possible.
 - a) Two adjacent angles, one acute and one obtuse that are supplementary.
 - b) Three adjacent obtuse angles that are supplementary.
 - c) Two adjacent acute angles that are supplementary.
 - d) Two adjacent congruent angles that are supplementary.
 - e) Two adjacent angles, one reflex and the other acute that are supplementary.

When you have completed this station,
place answer sheet in your portfolio

Label your portfolio entry.

Please tidy up the station.

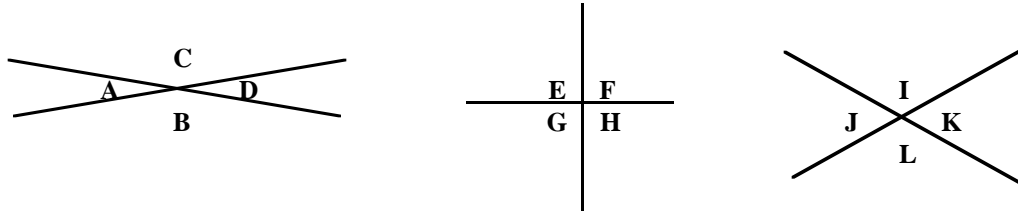
3. Geometry/Measurement

Grade 9

Angles, Lines & Line Segments
G/M-1e, G/M-8

Materials: transparent tape
protractor

1. On a sheet of paper, use pieces of tape that measure about 5 cm long and place them on a sheet of paper as follows:

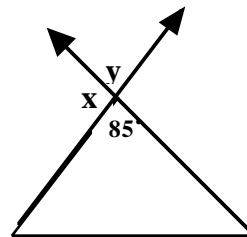


2. Label your constructions as above.
3. Write everything you know about the angles formed by the tape. Use a chart as follows:

What I Know	Why I Know

4. List all the supplementary angles found in your constructions.

5. Without measuring find the values of x and y . Explain your reasoning.



When you have completed this station,
place answer sheet in your portfolio

Label your portfolio entry.

Please tidy up the station.

4. Geometry/Measurement

Grade 9

Angles, Lines & Line Segments
G/M-1f, G/M-3

Materials: mira
protractor
Geometry Set
ruler

1. Use the mira or the instruments in your geometry set to draw two horizontal parallel lines that are about 6 cm long and 2 cm apart.
2. Use a ruler and the instruments in your geometry set to draw two horizontal nonparallel lines that are about 6 cm long and 2 cm apart.
3. Draw a transversal in each of your above constructions. Label the angles that are formed by the transversal. Use different labels for each angle.
4. Use the chart below to compare your two constructions.

	PARALLEL LINES	NONPARALLEL LINES
alternate interior angles		
alternate exterior angles		
corresponding angles		
same side interior angles		

When you have completed this station,
place answer sheet in your portfolio

Label your portfolio entry.
Please tidy up the station.

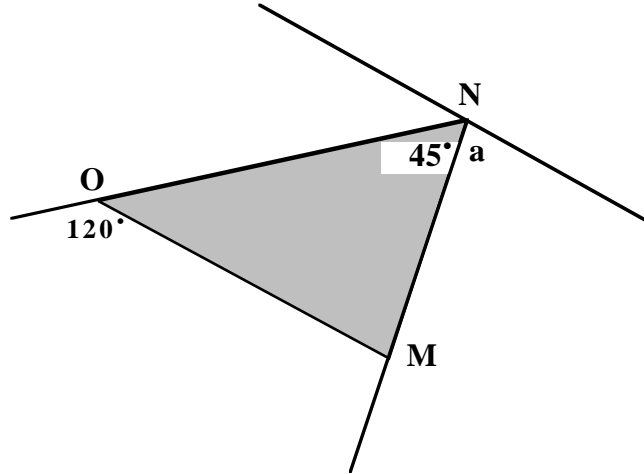
5. Geometry/Measurement

Grade 9

Angles, Lines & Line Segments
G/M-1f, G/M-3

Materials: mira
protractor
Geometry Set
ruler

- Draw three parallel lines.
 - Draw a transversal across all three lines.
 - Label all angles.
 - Measure **ONLY** one angle and then give the measure of all the other angles.
- Without measuring, determine the measure of $\angle a$.
Explain your reasoning.



When you have completed this station,
place answer sheet in your portfolio

Label your portfolio entry.
Please tidy up the station.

6. Geometry/Measurement

Grade 9

Angles, Lines & Line Segments

G/M-1f, G/M-3, G/M-56, G/M-64

Materials: mira
 protractor
 Geometry Set
 ruler

1. Use your protractor to draw a circle whose diameter is 12 centimetres.
2. In the circle draw and carefully label a:
 - a) chord
 - b) secant
 - c) central angle
3. Under your drawing and in your own words give the definition of a:
 - a) circle
 - b) chord
 - c) secant
 - d) central angle
4. How many chords, secants and central angles can you draw in one circle.
5. How can you use your mira to draw a diameter in your circle.
6. How can you use the mira to find the radius of a circle.
7. Calculate the perimeter and the area of your circle.
8. If you were to draw four equal adjacent angles in your circle, what would be the perimeter and the area of one of the angles?

When you have completed this station,
place answer sheet in your portfolio

Label your portfolio entry.
Please tidy up the station.

7. Geometry/Measurement

Grade 9

Angles, Lines & Line Segments
G/M-4

Materials: paper
mira
compass
straight edge

1. Draw a line and a point p that is about 2 cm above the line on the piece of paper.
2. Explain, step by step, how to use paper folding to draw a line through the point p parallel to your line.
3. Draw a line and a point S that is about 2 cm above the line on another piece of paper. Draw a line parallel to your line through the point S .
4. Use a compass to draw a line parallel to another point through a point through a point not on the line. Explain the procedure you used.
5. How would all these constructions change if the point was located on the line?

When you have completed this station,
place answer sheet in your portfolio

Label your portfolio entry.
Please tidy up the station.

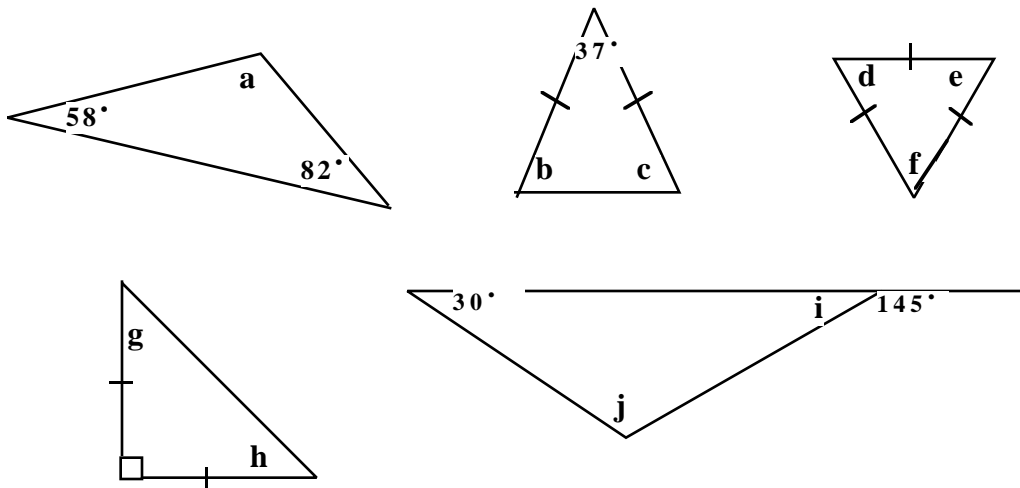
8. Geometry/Measurement

Grade 9

Angles, Lines & Line Segments
G/M-9, G/M-10

Materials: colored paper
glue

1. Without using a protractor, explain how you could prove that the angles of a triangle are always supplementary.
2. Give the measure of the missing angles in these triangles.



When you have completed this station,
place answer sheet in your portfolio

Label your portfolio entry.
Please tidy up the station.

9. Geometry/Measurement

Grade 9

Angles, Lines & Line Segments
G/M-9, G/M-10, G/M-15

Materials: mira

1. Using a mira draw the following:
 - a) a square
 - b) a rectangle
 - c) a parallelogram
 - d) a isosceles trapezoid
 - e) a rhombus
 - f) a kite

2. Each of the above a polygons called _____ .

3. Use what you know about diagonals of polygons and the sum of the angles in a triangle to write a rule about the sum of the angles in each of the above.

4. a) Draw a non-isosceles trapezoid and an irregular quadrilateral.

b) Does the rule that you wrote in #3 apply to these quadrilaterals as well. Use the diagrams in your explanation.

5. Use the scientific method (Problem, Materials, Procedure, Observation and Conclusion) to answer the following question.

“Does the rule about the sum of the angles of quadrilaterals apply to concave quadrilaterals?”

When you have completed this station,
place answer sheet in your portfolio

Label your portfolio entry.
Please tidy up the station.

10. Geometry/Measurement

Grade 9

Angles, Lines & Line Segments
G/M-11

Materials: mira
 paper folding
 compass

1. Draw a line that measures about 7 cm long.
2. Draw a point M 2 to 3 cm above or below the line.
3. Using paper folding or a mira draw a line through M perpendicular to your line. Explain your procedure.
4. How can you check to make sure the lines are perpendicular?
5. A friend of yours does not know how to use a compass to draw a line perpendicular to a line through a point. Write step by step how to do this. Include your drawings with your explanation.

When you have completed this station,
place answer sheet in your portfolio

Label your portfolio entry.
Please tidy up the station.

11. Geometry/Measurement

Grade 9

Angles, Lines & Line Segments
G/M-12

Materials: mira
paper folding
compass

1. You have been asked to prepare a series of overhead transparencies to teach students how to draw, using a mira, a line perpendicular to a given line through a point on the line. Prepare a series of drawings that could be made into transparencies.
2. You did such a wonderful job of the transparencies that an educational company hires you to prepare a slide presentation to demonstrate how to draw the bisector of a line using a compass. Draw the pictures for each slide and write the script that will be used with your slide presentation.

When you have completed this station,
place answer sheet in your portfolio

Label your portfolio entry.
Please tidy up the station.

12. Geometry/Measurement

Grade 9

Angles, Lines & Line Segments
G/M-12

Materials: compass

1. Draw a line that is about 5 cm long.
2. Using only your compass and a pencil draw another line that measures $\frac{3}{4}$ of the first line you drew. Describe, in writing, how you drew your second line.
3.
 - a) Draw a 45° angle using only a pencil and a mira or a compass.
 - b) Explain each step of your drawing.
 - c) Use a compass to see how close you were. Report.

When you have completed this station,
place answer sheet in your portfolio

Label your portfolio entry.
Please tidy up the station.

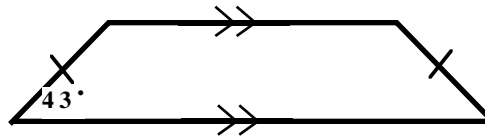
13. Geometry/Measurement

Grade 9

Angles, Lines & Line Segments
G/M-12

Materials:

1. Write everything you know about the following and tell how you know. Use a chart like the one below the diagram.



What I Know	How I Know

When you have completed this station,
place answer sheet in your portfolio

Label your portfolio entry.

Please tidy up the station.

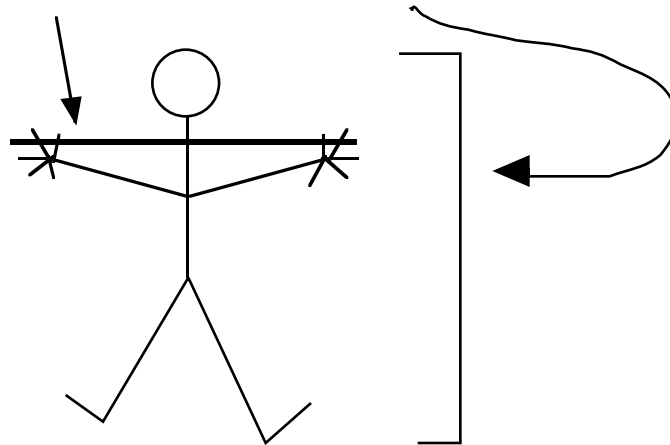
14. Geometry/Measurement

Grade 9

Angles, Lines & Line Segments
G/M-12

Materials: compass

1. Draw a square using a compass. Explain your work.
2. What would you do differently to draw a rectangle?
3. Show how you can use paper folding to cut a square out of a rectangular piece of paper.
4. Are you a rectangle or a square? Check the length of your arms from tip to tip and your height from head to toe.



When you have completed this station,
place answer sheet in your portfolio

Label your portfolio entry.

Please tidy up the station.

15. Geometry/Measurement

9
17

Polygons Gr.

G/M-16, G/M-

G/M-20

Materials: pentominoes
grid paper

1. a) Choose one of the pentomino shapes.
 - b) Using four pieces make a similar shape whose dimensions are twice as big as the original piece.
 - c) Draw to record.
 - d) When the dimensions of the shape are doubled, what happens to the area?
 - e) When the dimension of the shape are doubled, what happens to the perimeter?

2. a) Choose another pentomino piece.
 - b) Using nine pieces make a similar shape whose dimensions are three times bigger than the original piece. **DO NOT USE THE PIECE YOU CHOSE IN YOUR CONSTRUCTION**
 - c) Draw to record.
 - d) When the shape is tripled, what happens to the area?
 - e) When the shape is tripled, what happens to the perimeter?

3. a) Predict what happens when a shape is quadrupled?
 - b) To check your prediction, use the grid paper to draw a shape and to make a similar shape that is four times larger. Calculate the area and the perimeter.

When you have completed this station,
place answer sheet in your portfolio.
Label your portfolio entry.

Please tidy up the station.

16. Geometry/Measurement

Polygons Gr. 9

G/M-16, G/M-17

G/M-20, G/M-23

Materials: paper
photocopier

1. On a piece of paper, draw an isosceles trapezoid.
2. Make a photocopy, enlarging and shrinking the original drawing.
3. Measure the corresponding angles of the original drawing and of its images. Record.
4. Explain your findings.

When you have completed this station,
place answer sheet in your portfolio.
Label your portfolio entry.

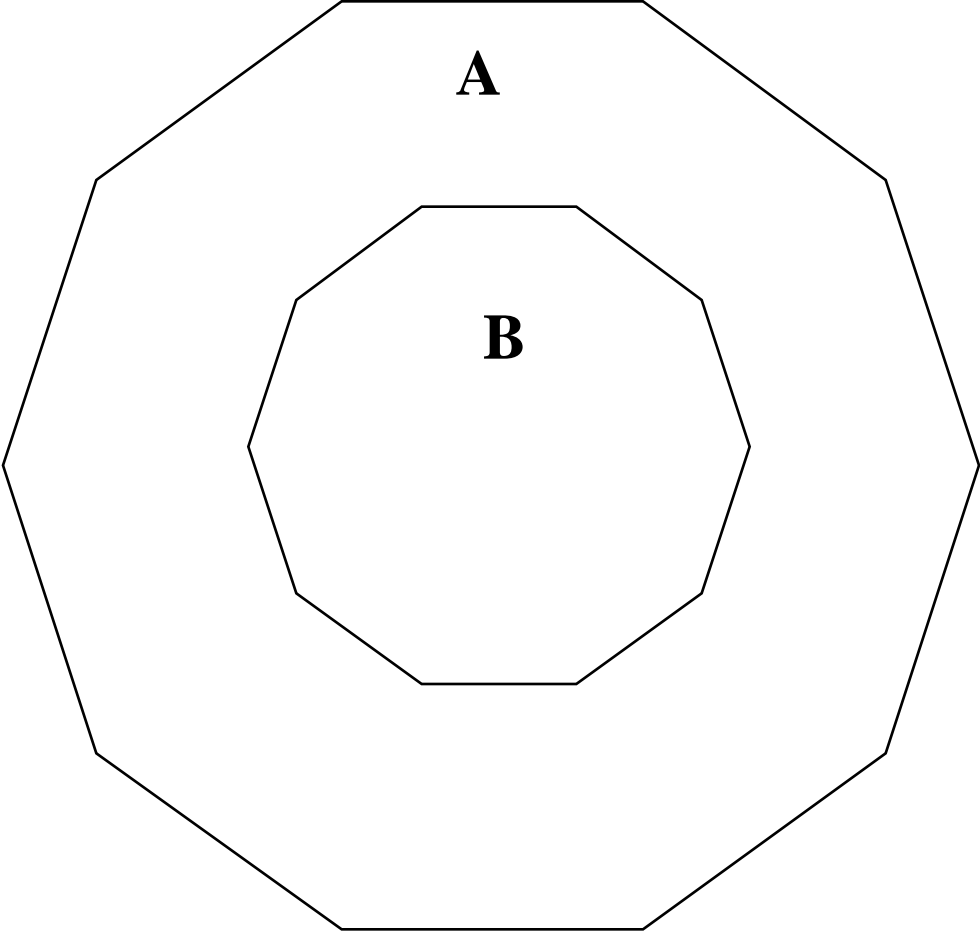
Please tidy up the station.

17. Geometry/Measurement

Polygons Gr. 9
G/M-16, G/M-17

Materials: plain paper and grid paper
photocopier

1. What is the scale factor of these similar polygons?



M

The diagram shows three nested rectangles. The outermost rectangle is labeled M. Inside it is a smaller rectangle labeled N. Inside rectangle N is the smallest rectangle labeled O. All three rectangles are centered and have their sides parallel to each other.

N

O

Please turn the card over . . .

2 Choose one of the following activities:

- a) **Find the dimensions of the playing area of a sport such as a volleyball, basketball, tennis, badminton court, a soccer, lacrosse, football, rugby field a hockey or curling rink.
Draw a scale drawing of it.**
- b) **Use scale drawings to show the difference between the Canadian football field and the American football field**
- c) **Choose a room at school or at home and make a scale drawing of it and the furniture found in that room.**
- d) **Choose two molecules of different substances and make scale drawings of each.**
- e) **Read about the golden ratio. How do artists apply the golden ratio? Leonardo da Vinci is well known in this area. How is the golden ratio used in architecture? The Parthenon, a temple built by the ancient Greeks is famous because of the golden ratio. Find several similar rectangles in your surroundings that are golden rectangles. Draw them to scale.**

When you have completed this station,
place answer sheet in your portfolio.
Label your portfolio entry.

Please tidy up the station.

19. Geometry/Measurement

Polygons Gr.9

G/M-20, G/M-23

Materials: board
rubber bands
thumb tacks
grid paper
draw program on the computer

1. Draw a polygon.

2. Make polygons similar to the one you drew using a
 - a) grid

 - b) pantograph

 - c) computer drawing program if available

3. Record the scale factor for each drawing.

When you have completed this station,
place answer sheet in your portfolio.
Label your portfolio entry.

Please tidy up the station.

20. Geometry/Measurement

Polygons Gr.9
G/M-21, G/M-22

Materials: grid paper

Sol made a scale drawing of his triangular garden, so he could plan how to plant it. Two sides of the garden 10 m and 12 m and they form an angle of 50° . He drew a 50° angle on grid paper and made the triangle using a scale factor of 1:1. He then measured to find the length of the third side.

1. Draw his garden and give the length of the third side.
2. Jamie says that all you need to do is use the Pythagorean theorem to find the length of the third side of any triangle. Do you agree with Jamie? Explain your reasoning.

Shandra said that two triangles drawn on a page looked similar.

3. If she couldn't cut them out, how could she find out for sure? Find two different ways she could do this, and explain your reasoning.

Paulo claims that you can use shadows to find the height of tall buildings or of trees and telephone posts.

4. Do you agree with him? Explain your thinking.
5. Use this idea to estimate the height of a high object in your yard or in your school yard.

When you have completed this station,
place answer sheet in your portfolio.
Label your portfolio entry.

Please tidy up the station.

21. Geometry/Measurement

Plane-Space Gr.9

G/M-40, G/M-77

Materials: triangulation paper
linking cubes

1. Use the triangulation paper to draw a cube the measures 1cm x 1cm x 1 cm.
2. a) Use the cubes to build a cube whose dimensions are twice the dimensions of the cube in #1.

b) What are the dimensions of this cube?

c) Draw the cube on your triangulation paper.
3. a) Use the cubes to build a cube whose dimensions are 3 cm x 3 cm x 3 cm.

b) Draw the cube on your triangulation paper.
4. a) Examine the cubes and your drawings and fill in the following chart:

dimensions	surface area	volume
1x1x1	6	1
2x2x2		
3x3x3		
4x4x4		
5x5x5		

- b) What conclusion can you draw from the information on your chart. Explain your answer.

When you have completed this station,
place answer sheet in your portfolio.
Label your portfolio entry.

Please tidy up the station.

22. Geometry/Measurement

Plane-Space Gr.9

G/M-40, G/M-77

Materials: triangulation paper
linking cubes

1. **Design an experiment to determine the effect on the volume of a solid of changing one or more of its dimensions. Use charts to report your data.**

When you have completed this station,
place answer sheet in your portfolio.
Label your portfolio entry.

Please tidy up the station.

23. Geometry/Measurement

Plane-Space Gr.9

G/M-40, G/M-66

Materials: triangulation paper
linking cubes

1. **Design an experiment to determine the effect on the surface area of a solid of changing one or more of its dimensions. Use charts to report your data.**

When you have completed this station,
place answer sheet in your portfolio.
Label your portfolio entry.

Please tidy up the station.

24. Geometry/Measurement

Plane-Space Gr.9

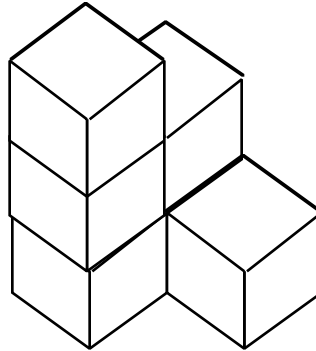
G/M-40

Materials: triangulation paper
linking cubes

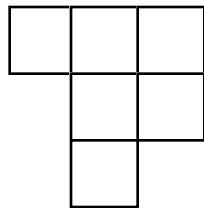
Six cubes were used to build this model.

1. Using triangulation paper, draw and label the

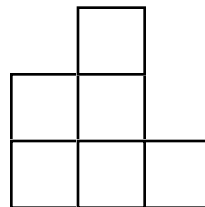
- a) overview plan
- b) front elevation
- c) left elevation
- d) right elevation



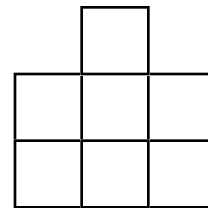
2. Use the cubes to build the object that follows the plan and the front and side views. Show your construction to your teacher and then draw a view on triangulation paper.



plan



front



side

3. Build a neat shape with the blocks and draw one of the views on triangulation paper. Show your shape and your drawing to your teacher.

When you have completed this station,
place answer sheet in your portfolio.
Label your portfolio entry.

Please tidy up the station.

25. Geometry/Measurement

Plane-Space Gr.9
G/M-40

Materials: object
pentominoes shapes
paper pentominoes
scissors
tape
recycling paper
construction paper

1. Carefully examine the pentomino shapes. Which ones do you think could be folded to form open boxes. Record by writing the letters under a yes and a no column.
2. Cut the paper pentominoes to check your predictions.
3. Report your findings.
4. Take the object provided at the station and create a net to make a box to store the object. You may choose to have a bottom and a lid or have it all in one piece. Do not forget to leave tabs for gluing. Use the recycling paper to experiment, the draw your net on your answer sheet and build the box with construction paper.

When you have completed this station,
place answer sheet in your portfolio.
Label your portfolio entry.

Please tidy up the station.

26. Geometry/Measurement

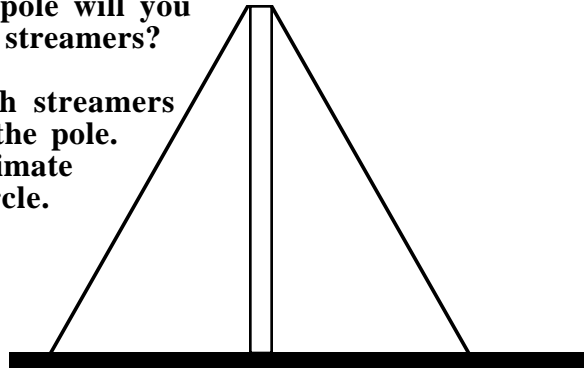
Length Gr.9

G/M-52, G/M-53

Materials: string
calculator

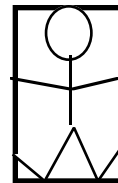
You have been asked to decorate the gym for a dance. You want to put streamers from the top of the net support poles which measure $2\frac{1}{2}$ metres in height. The streamers are 4 metres in length. You will be taping the streamer to the floor.

1. How far away from the pole will you be taping the end of the streamers?
2. Suppose you tape enough streamers to form a circle around the pole. What will be the approximate circumference of the circle.



You are working as a mover's helper. You need to move a circular table with a diameter of 215 cm through a rectangular doorway 80 cm x 210 cm.

3. Will this be possible? Explain your answer.
4. You need to get a pair of skis that measure 195 cm into a box. You find a box that measures 190 cm by 40 cm. Will you be able to use this box for the skis? Explain your answer.



You have been asked to find the dimensions of a square that has a diagonal length of 12 km.

5. Find your answer two ways. One way is to use a grid in the first quadrant of the coordinate plane and the other is to use the Pythagorean Theorem. Explain your reasoning in each case.

When you have completed this station,
place answer sheet in your portfolio.

Label your portfolio entry.

Please tidy up the station.

27. Geometry/Measurement

Length Gr.9
G/M-52, G/M-53

Materials: calculator

The Pythagorean Theorem is used frequently in the real world to solve problems. (Firefighters, carpenters, architects etc.) Find at least five different area where people need to use this knowledge. Make up a problem for each area that you choose. Provide the solutions for your problems.

When you have completed this station,
place answer sheet in your portfolio.
Label your portfolio entry.
Please tidy up the station.

28. Geometry/Measurement

Length Gr.9
G/M-40

Materials: calculator

Give step by step directions on how to calculate the length of line segment represented by the points $(3,3)$ and $(-2,3)$. Draw and use the graph the line segment in your answer.

When you have completed this station,
place answer sheet in your portfolio.
Label your portfolio entry.
Please tidy up the station.

29. Geometry/Measurement

Area Gr.9
G/M-58, G/M-66
G/M-73

Materials: two sizes of packages
of Toblerone chocolate
Calculator

1. Calculate the surface area of each of the boxes.
2. Calculate the volume of each box.
3. Copy and complete this chart.

	dimensions	surface area	volume	mass of chocolate
Box 1				
Box 2				

4. Compare the mass of the chocolate in the boxes to the surface areas of the two boxes. Is the ratio the same?
5. Compare the mass of the chocolate in the boxes to the volume of the two boxes. Is the ratio the same?

When you have completed this station,
place answer sheet in your portfolio.
Label your portfolio entry.
Please tidy up the station.

30. Geometry/Measurement

Area Gr.9
G/M-64

Materials: 40 cm long string

- 1. Tie the ends of the string together.**
- 2. Place the string on your desk in the shape of a square.**
- 3. Calculate the perimeter of the square.**
- 4. Change the square into a circle.**
- 5. Calculate the perimeter and the area of the circle.**
- 6. Do the circle and the square have the same area?
If not, which shape has the larger area and what is the difference between the two? Explain your work.**
- 7. Repeat the same procedure using the string as a square and as two different rectangles. Explain your results.**

When you have completed this station,
place answer sheet in your portfolio.

Label your portfolio entry.

Please tidy up the station.

30. Geometry/Measurement

Area Gr.9

G/M-64

Materials: paper
calculator

Suppose you have the choice of square shaped pizza and circular pizza. The sides of the square pizza are equal to the diameter of the circular pizza.

Design an investigation to see which shape, if any, gives you more pizza. (All other factors remain the same such as thickness)

If there is a difference, is the difference proportionately different for different sizes?

Approximate the difference in percentage.

Apply what you have discovered to square and circular meat patties for hamburgers. Which ones provide more meat? How could you compensate so that you could make it look like more meat but indeed have the same amount in each case.

When you have completed this station,
place answer sheet in your portfolio.

Label your portfolio entry.

Please tidy up the station.

32. Geometry/Measurement

Area Gr.9

G/M-64

Materials: pattern blocks

1. **How many sides of each of the following must you measure to find the perimeter and the area? Explain your answer in each case.**
 - a) square
 - b) rectangle
 - c) parallelogram
 - d) trapezoid
 - e) rhombus
 - f) kite
 - g) hexagon
 - h) triangle
 - i) irregular polygon

2.
 - a) **Choose six pattern blocks with at least three different shapes.**
 - b) **Make a shape with the pattern blocks and trace around the shape.**
 - c) **If the side of the triangle is one unit, calculate the perimeter and the area of your shape.**

When you have completed this station,
place answer sheet in your portfolio.

Label your portfolio entry.

Please tidy up the station.

33. Geometry/Measurement

Area Gr.9

G/M-64

Materials: 40 cm long string

- 1. Barrie wanted to fence off a rectangular garden area. The fencing material comes in 1 m long units that cannot be cut. If Barrie had 12 m of fencing, What are the dimensions of the largest garden area he can make? draw a diagram to explain your reasoning.**

- 2. The canoe club at school wants to make a rectangular area for a special display in the gym for Education Week. They have 14 m of enclosure rope to block off two sides of the area, using the corner walls for the other two sides. What are the dimensions of the largest area they could rope off?**

- 3. a) If you had a length of wire that could bend anywhere, how could you find the largest area you could enclose without measuring? Explain, using different geometric shapes.**
b) If you had 16.25 m of the wire, what would the dimensions be?

When you have completed this station,
place answer sheet in your portfolio.

Label your portfolio entry.

Please tidy up the station.

34. Geometry/Measurement

Area Gr.9
G/M-66, G/M-73

Materials: cans

- 1. Find the surface area and the volume for each of the cans provided at this station.**
- 2. Record your results in an chart.**
- 3. Compare the volume and the surface area to determine if there is a proportion between them.**

When you have completed this station,
place answer sheet in your portfolio.

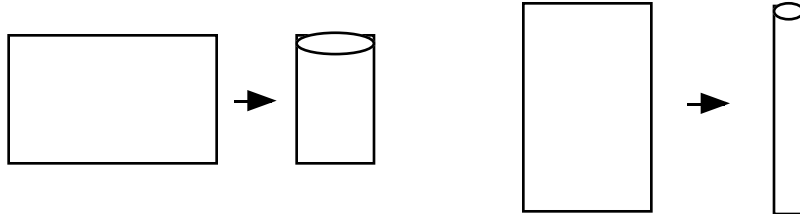
Label your portfolio entry.
Please tidy up the station.

35. Geometry/Measurement

Area Gr.9
G/M-66, G/M-73

Materials: paper (12 cm x 20 cm)

1. You will need two sheets of paper (12 x 20). Make two different cylinders by rolling the paper both ways. Join with tape trying not to overlap.



2. Calculate the surface area and the volume for each of the cylinders. Compare that two and write your conclusions.
3. How would the results of this activity be useful to the canning industry?

When you have completed this station,
place answer sheet in your portfolio.

Label your portfolio entry.

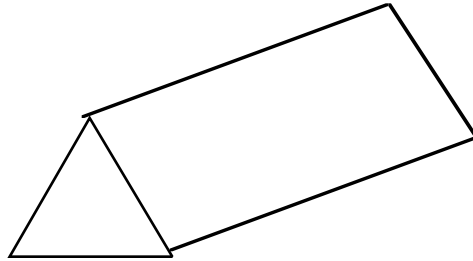
Please tidy up the station.

36. Geometry/Measurement

Area Gr.9
G/M-66, G/M-73

Materials:

1. Tell how you would calculate the surface area of this pup tent



2. How would you calculate the volume of air in this pup tent?

When you have completed this station,
place answer sheet in your portfolio.
Label your portfolio entry.
Please tidy up the station.

37. Geometry/Measurement

Area Gr.9

G/M-73

Materials: plasticine
 grid paper (2 cm)

- 1. Use the grid to build an open cube.**
- 2. Use the plasticine to make a ball that fits exactly in the box.**
- 3. Calculate the volume of the box.**
- 4. Calculate the volume of the ball. ($V = \frac{4}{3} \pi r^3$)**
- 5. Compare your results. Explain why they make sense.**

When you have completed this station,
place answer sheet in your portfolio.

Label your portfolio entry.

Please tidy up the station.

38. Geometry/Measurement

Area Gr.9
G/M-58. G/M-70

Materials:

- 1. The area of the faces of a rectangular prism are 42 cm^2 , 48 cm^2 et 56 cm^2 . What is the volume of the prism?**

- 2. The dimensions of a rectangular prism are $36\text{cm}^2 \times 7$.**
 - a) What are the dimensions of each side??**
 - b) What is the volume?**

- 3. Make up three similar problems using rectangular prisms, cubes, triangular prism, or cylinders.**

When you have completed this station,
place answer sheet in your portfolio.

Label your portfolio entry.

Please tidy up the station.

39. Geometry/Measurement

Volume Grade 9

G/M-77

Materials: cm cubes
 ruler
 paper 20 cm x 25 cm
 calculator
 scissors
 tape

- 1. Follow the directions below to make a box that will hold the maximum number of cubes.**
 - a) Write the problem in your own words.**
 - b) List your strategies and make a plan.**
 - c) Carry out your plan.**
 - d) Reflect. Did it work? Do you need to go back to b)?**
 - e) Write the maximum number of the cubes that can possibly be held by a box formed using a 20 cm x 25 cm piece of paper and explain your reasoning. Use drawings to show what you did.**

When you have completed this station,
file your writing and your drawings in your portfolio.
Label your portfolio entry.

Please tidy up the station.

40. Geometry/Measurement

Grade 9

Capacity-Mass-Time
G/M-81

Materials: calculator

1. a) A goldfish requires 6 litres of water in which to live. What is the maximum number of goldfish that can be kept in an aquarium that is 24 cm x 40 cm x 28 cm? Explain your answer.
b) What is the mass of the water in the aquarium?
2. Make a 3-D model to show one of the following:
 - a) 1 mL of water at 4°C → 1 cm³ and has a mass of 1 g
 - b) 1 L of water at 4°C → 1000 cm³ and has a mass of 1 kg
 - c) 1000 L of water at 4°C → 1 m³ and has a mass of 1000 kg = 1t

When you have completed this station,
file your writing and your drawings in your portfolio.
Label your portfolio entry.

Please tidy up the station.