




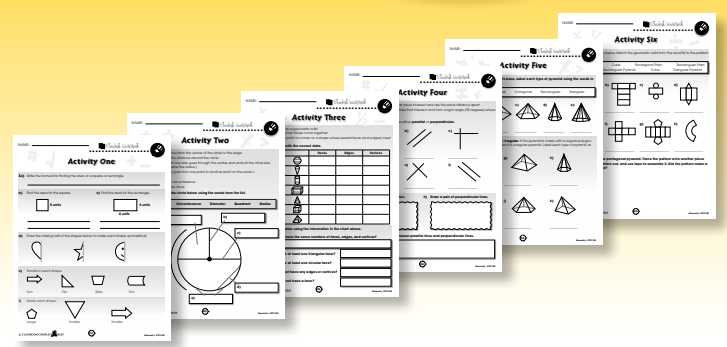


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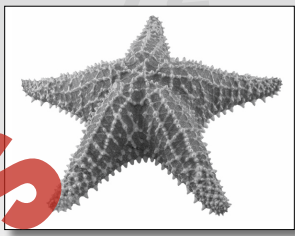




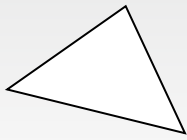
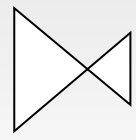
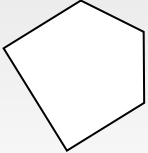
Task Sheet 3

Polygons

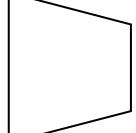
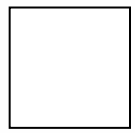
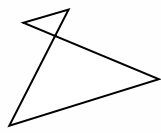
3) A polygon can be simple or complex. A simple polygon has only one boundary and its line segments do not cross each other. A complex polygon's line segments do cross each other.



a) Label each polygon as **simple** or **complex**.



i. _____ ii. _____ iii. _____ iv. _____



v. _____ vi. _____ vii. _____ viii. _____

b) Draw a **simple** polygon and a **complex** polygon.

Simple Polygon

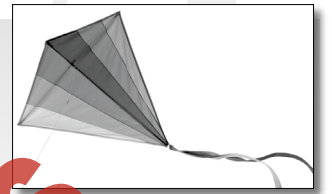
Complex Polygon



Task Sheet 6

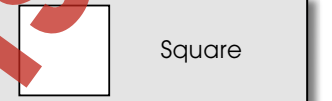
Quadrilaterals

6) A quadrilateral is any four-sided shape. The angles of a quadrilateral always have a sum of 360 degrees.

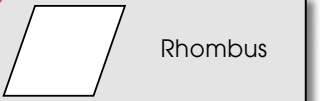


Match each definition to its shape.

a) A four-sided polygon having all right angles.



b) A four-sided polygon with two pairs of parallel sides.



c) A four-sided polygon with one pair of opposite parallel sides.



d) A four-sided polygon with all sides of equal length and all angles 90 degrees.



e) This shape is a kite. Write a definition for this shape.



Explore With Technology

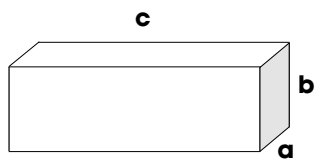
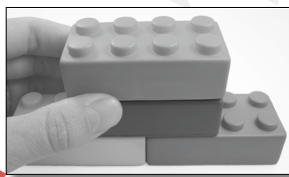
With the help of an adult, use the Internet, find pictures, drawings, and names of other quadrilaterals. Which quadrilateral is your favorite?



Task Sheet 14

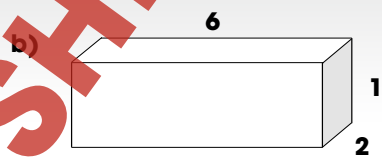
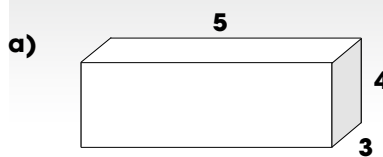
Shape Up

14) To find the surface area of a rectangular prism, multiply two times the top and bottom, two times the ends, and two times the sides, then add them together.

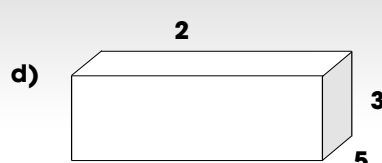
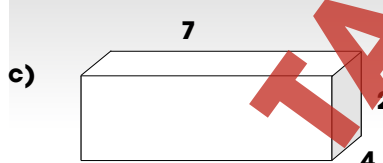


$$2(ac) + 2(ab) + 2(bc) = \text{surface area}$$

Find the area for each rectangular prism. Remember to show your work.



_____ + _____ + _____ = _____ square units _____ + _____ + _____ = _____ square units



_____ + _____ + _____ = _____ square units _____ + _____ + _____ = _____ square units

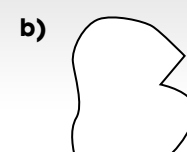


Drill Sheet 1

Is it a polygon? Circle YES or NO.



YES NO



YES NO



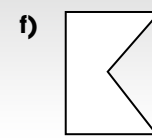
YES NO



YES NO



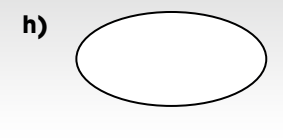
YES NO



YES NO

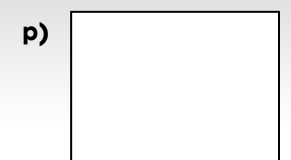
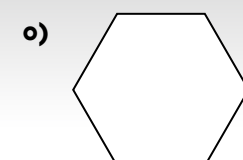
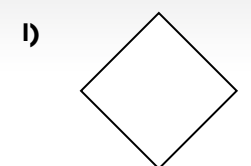
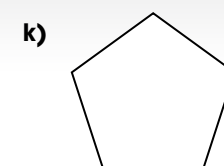


YES NO



YES NO

Circle the regular polygons.



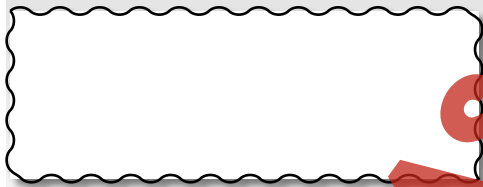


Drill Sheet 2

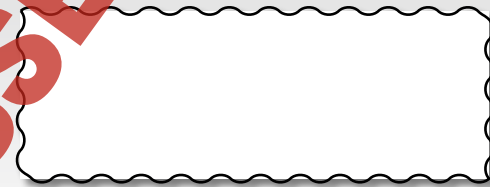
Match each word to its definition.

- | | | | |
|---|-------------|---|---|
| a | Scalene | All sides are the same length | 1 |
| b | Right | One angle is 90 degrees | 2 |
| c | Acute | All three angles are less than 90 degrees | 3 |
| d | Equilateral | Two sides are the same length | 4 |
| e | Isosceles | One angle is more than 90 degrees | 5 |
| f | Obtuse | All sides are different lengths | 6 |

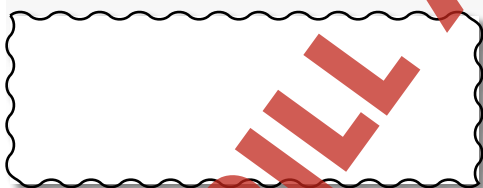
g) Draw an equilateral triangle.



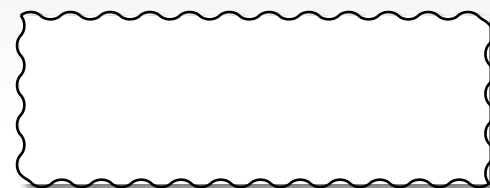
h) Draw an acute triangle.



i) Draw an obtuse triangle.



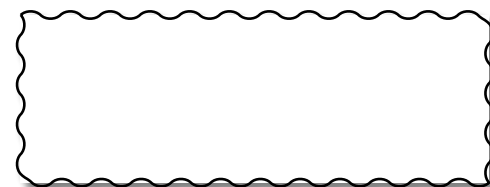
j) Draw a right triangle.



k) Draw a scalene triangle.

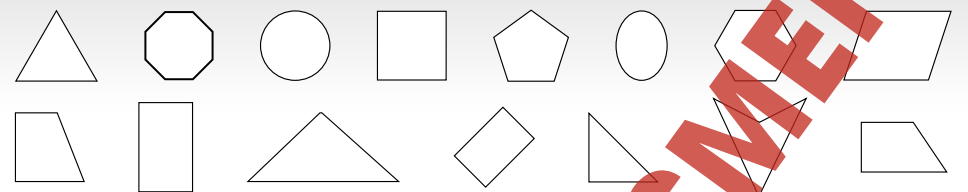


l) Draw an isosceles triangle.

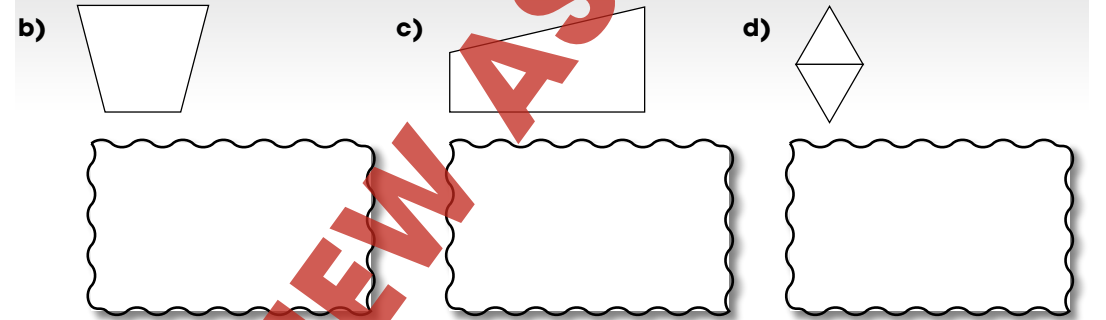


Review A

a) How many different ways can the shapes be sorted?



Draw each item's congruent shape.



e) What does symmetry mean? _____

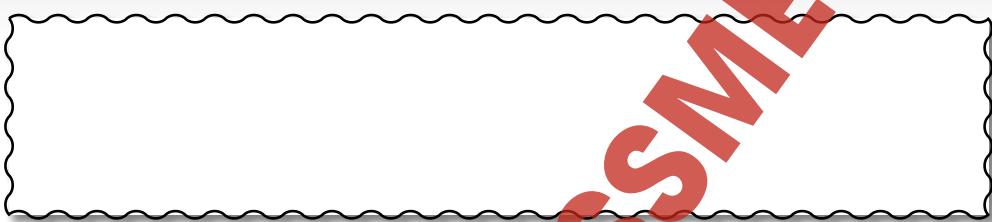
f) Draw a shape that is symmetrical. g) Draw a shape that is not symmetrical.



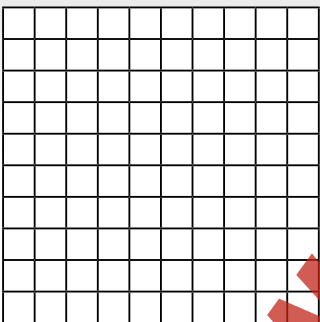
Review B

a) What is a polygon? _____

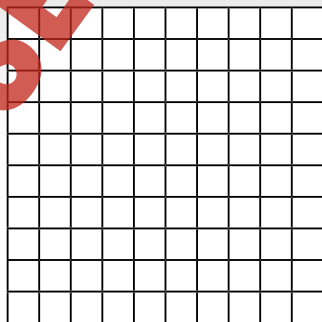
b) Draw three different polygons.



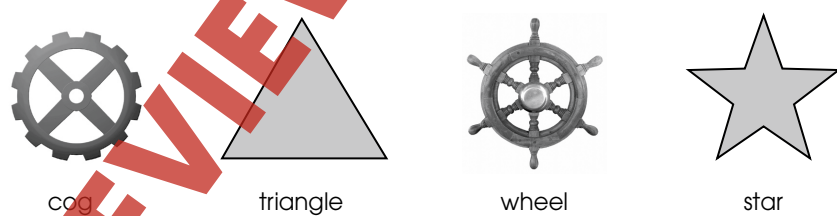
c) Draw a square with an area of 9 square units.



d) Draw a rectangle with an area of 12 square units.



Use the shapes to answer each question.



cog

triangle

wheel

star

- e) Which shape has an order of five? _____
- f) Which shapes have line symmetry? _____
- g) Which shape has three acute angles? _____






Polyhedrons and Platonic Solids

Poly means "many" and *hedron* means "face". A polyhedron is a solid with only flat faces.

Circle the solid shapes that are polyhedrons.



There are five platonic solids. To figure out if a shape is a platonic solid, add the number of faces (F) and vertices (V), and subtract the number of edges (E). If the answer is two, the figure is a platonic solid.
 $F + V - E = 2$

| Shape | Faces (F) | Vertices (V) | Edges (E) | F+V+E = | Is it a Platonic Solid? |
|--|-----------|--------------|-----------|---------|-------------------------|
| Dodecahedron  | | | | | |
| Octahedron  | | | | | |
| Cube  | | | | | |
| Tetrahedron (Triangular Pyramid)  | | | | | |
| Icosahedron  | | | | | |

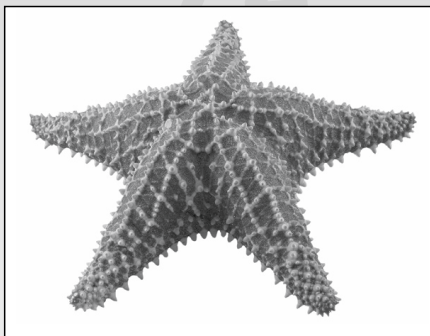
NAME: _____



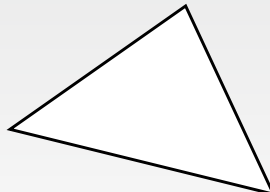
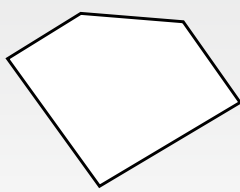
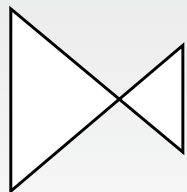
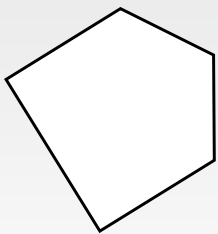
Task Sheet 3

Polygons

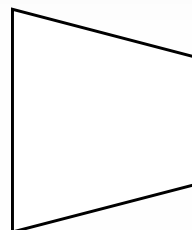
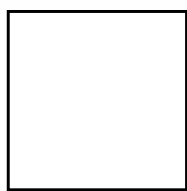
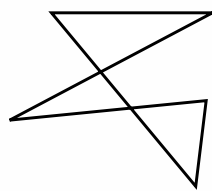
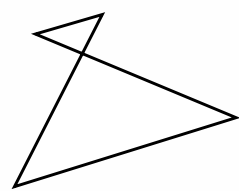
3) A polygon can be simple or complex. A simple polygon has only one boundary and its line segments do not cross each other. A complex polygon's line segments do cross each other.



a) Label each polygon as **simple** or **complex**.



i. _____ ii. _____ iii. _____ iv. _____



v. _____ vi. _____ vii. _____ viii. _____

b) Draw a **simple** polygon and a **complex** polygon.

Simple Polygon

Complex Polygon

3.

- a) i) Simple
- ii) Complex
- iii) Simple
- iv) Simple

- v) Complex
- vi) Complex
- vii) Simple
- viii) Simple

b) Answers may vary. Both polygons should abide by the simple and complex rule.

9

4.

- a) i) Equilateral
- ii) Isosceles
- iii) Scalene
- iv) Isosceles
- v) Scalene
- vi) Scalene
- vii) Isosceles
- viii) Equilateral

b) Answers may vary. Triangles should abide by the scalene rule.

c) Answers may vary. Triangles should abide by the isosceles rule.

10

5.

- a) Acute
- b) Right
- c) Acute
- d) Obtuse
- e) Right
- f) Acute
- g) Obtuse
- h) Obtuse
- i) Acute

11

6.

a) Rectangle

b) Rhombus

c) Trapezoid

d) Square

12

7.

a) $1 \times 4 = 4$ square units

b) $4 \times 4 = 16$ square units

c) $3 \times 3 = 9$ square units

d) $8 \times 6 = 48$ square units

e) $8 \times 8 = 64$ square units

f) $4 \times 6 = 24$ square units

e) Answers may vary. Possible answer includes: A kite has four sides. Opposite sides are the same in length. It has one pair of short sides and one pair of long sides.

g) $8 \times 5 = 40$ square units

13

