CHAPTER 18 Two-Dimensional Shapes
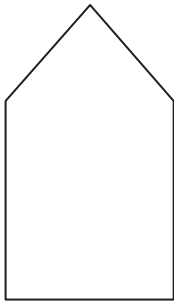
Worksheet 1   Classifying Polygons

Identify the shape.

1.   I have 3 sides and 3 corners. _____

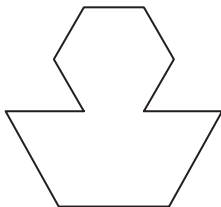2.   I have 6 sides and 6 corners. _____

**Each figure is made from two shapes.
Name the shapes.**
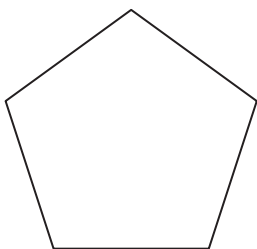
3.   This figure is made from a _____

and a _____.

4.   This figure is made from a _____
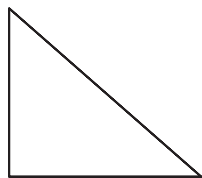
and a _____.

Mark all the angles in the shape.

5.

Tell whether each plane figure is *closed* or *open*.

> *Example*
>
>
>
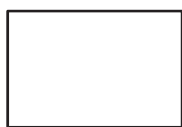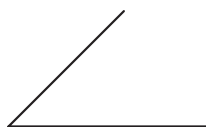> **Closed plane figures** start and end at the same point.
>
> ___closed___

6.

_____

7.

_____

8.

_____

9.

_____

10.

_____

11.

_____
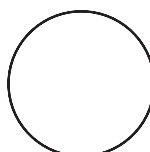
**Look at the figures.
Identify all the polygons.**

12.
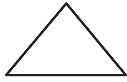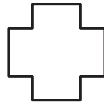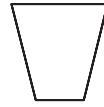
A   B   C   D   E   F
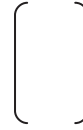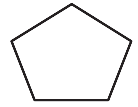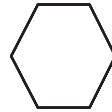
_____

> A **polygon** is a closed plane figure formed by three or more line segments.

Draw lines to match the name and shape.
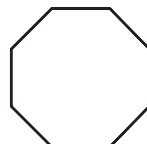
13.   Triangle   ●   ●   ⬡
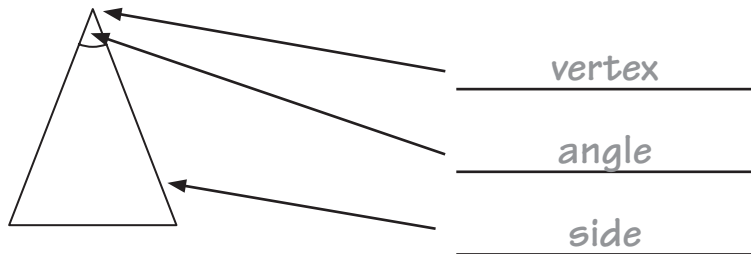
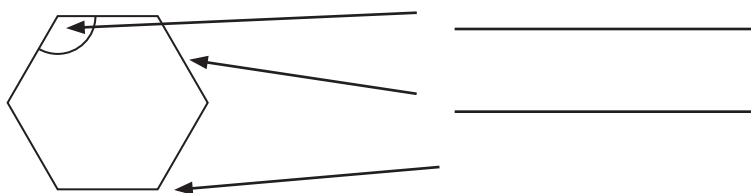Square   ●   ●   ⬠

Pentagon   ●   ●   ☐

Hexagon   ●   ●   △

Octagon   ●   ●   ⯃

Label the parts of the shape with *angle*, *side*, or *vertex*.

Example

vertex _____

angle _____

side _____

14.

_____

_____

_____

Complete the table.

15.

Polygon	Number of Sides	Number of Angles	Number of Vertices
Octagon			
Hexagon			
Pentagon			
Rectangle			
Triangle			

Look at the figures.
Identify all the quadrilaterals.

16.

A　　　B　　C　　　D　　　E　　　　F

_____

_____
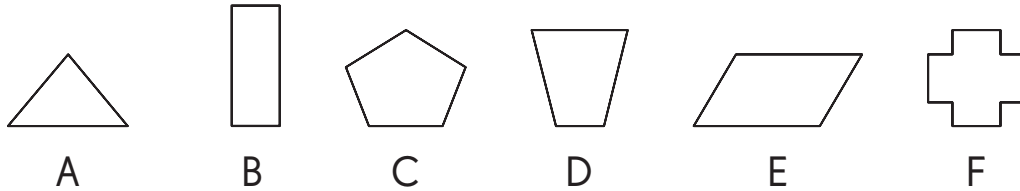
Quadrilaterals are polygons that have four sides and four angles.

Draw lines to match the shape and the name.

17. Square ●   ●

Rectangle ●   ●
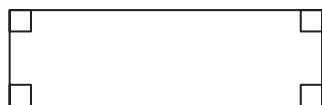
Rhombus ●   ●
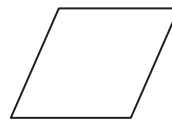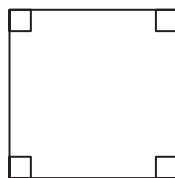
Trapezoid ●   ●

Parallelogram ●   ●

Which is a square?

18.

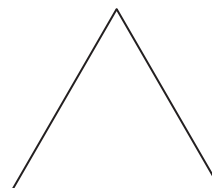A   B   C

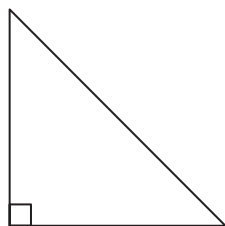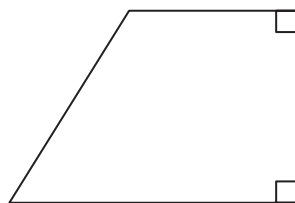Explain:

_____

_____

Which is a rectangle?

19.

A   B   C

Explain:

_____

_____

Check each statement that is a property of a square.

20. ☐ A square has 3 sides.

☐ Only the opposite sides of a square are equal.

☐ All angles of a square are right angles.

☐ All sides of a square are equal.

☐ Opposite sides of a square are parallel.

Check each statement that is a property of a rectangle.

21. ☐ A rectangle has 3 sides.

☐ The opposite sides of a rectangle are equal.

☐ All angles of a rectangle are right angles.

☐ All sides of a rectangle are equal.

☐ Opposite sides of a rectangle are parallel.
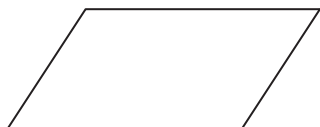
Which is a parallelogram?

22.

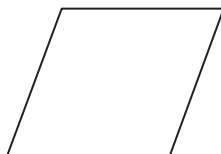A   B   C
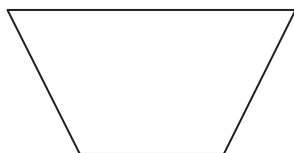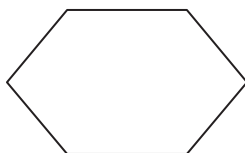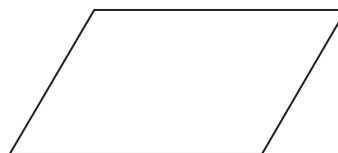
Explain:

_____

_____

Which is a rhombus?

23.

A   B   C

Explain:

_____

_____

Check each statement that is a property of a parallelogram.

24. ☐ A parallelogram has 4 sides.

☐ The opposite sides of a parallelogram are equal.

☐ All angles of a parallelogram are equal.

☐ All sides of a parallelogram are equal.

☐ The opposite sides of a parallelogram are parallel.

Check each statement that is a property of a rhombus.

25. ☐ A rhombus has 5 sides.

☐ Only the opposite sides of a rhombus are equal.

☐ All angles of a rhombus are equal.

☐ All sides of a rhombus are equal.

☐ The opposite sides of a rhombus are parallel.

☐ A rhombus is a parallelogram.

☐ A rhombus is always a square.

Which is a trapezoid?

26.

A   B   C

Explain:

_____

_____
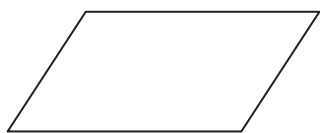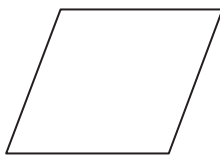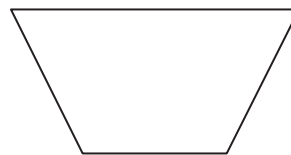
Check each statement that is a property of a trapezoid.

27. ☐ A trapezoid has 4 sides.

☐ The opposite sides of a trapezoid are equal.

☐ All angles of a trapezoid are equal.

☐ All sides of a trapezoid are equal.

☐ The opposite sides of a trapezoid are parallel.

☐ A trapezoid is a parallelogram.

☐ Only one pair of opposite sides of a trapezoid is parallel.

Worksheet 2   Congruent Figures

Circle the sets that show a slide.

Example
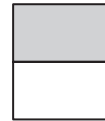
To **slide** a figure is to move it along in any direction.

A   B   C

1.

A   B   C

2.

A   B   C

3.

A   B   C
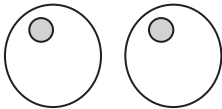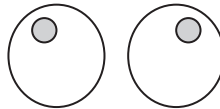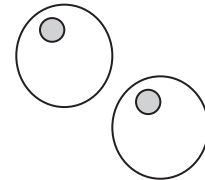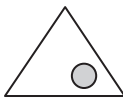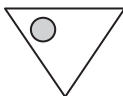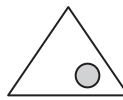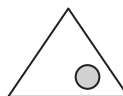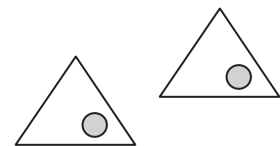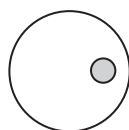
Put a check (✔) in the box that shows a flip.

Example
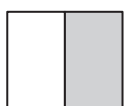
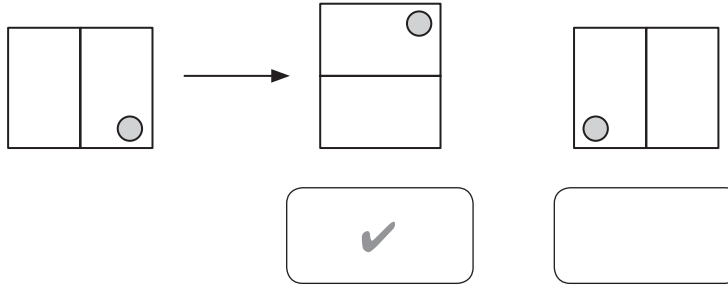To **flip** a figure is to turn it front to back over a line.

4.

5.

6.
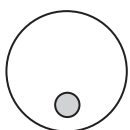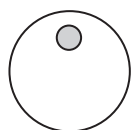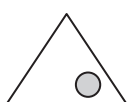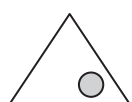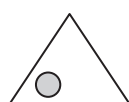
Put a check (✔) in the box that shows a turn.

Example

To **turn** a figure is to rotate it about a point.

7.

8.

9.
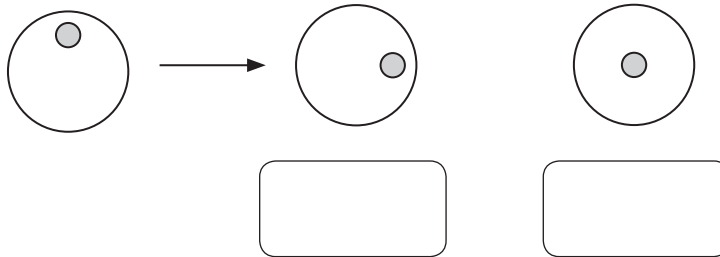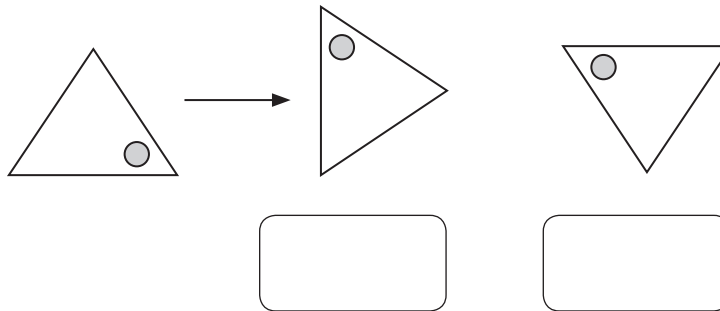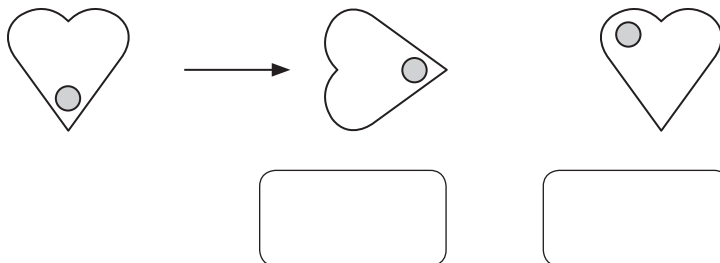
Decide whether the shapes are congruent.
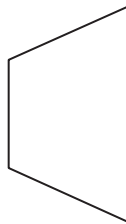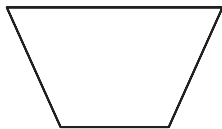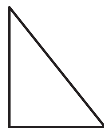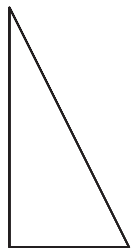**Write *yes* or *no*.**

Example
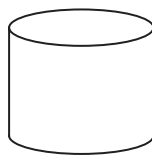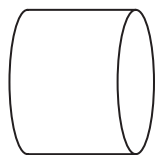

Two figures that have the same shape and size are **congruent**.

yes

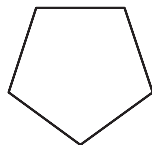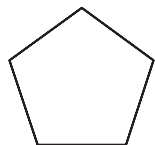**10.**
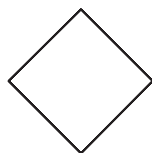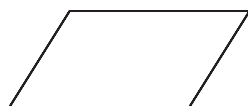

11.

12.

13.

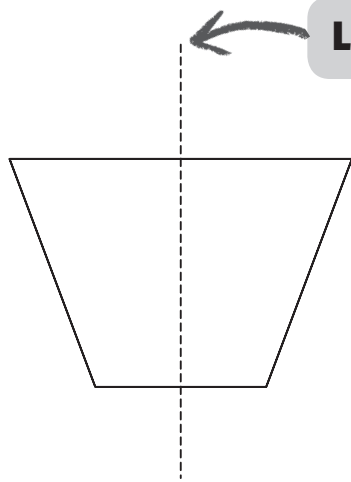## Worksheet 3   Symmetry

**Decide whether the line is a line of symmetry.
Write *yes* or *no*.**

Example
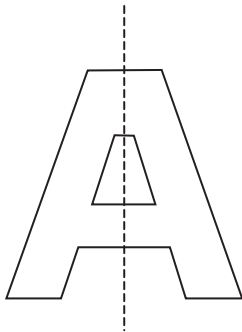
Line of symmetry
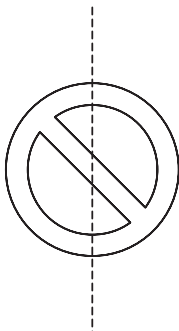
A **symmetric** figure has a line of symmetry. This line divides the figure into two congruent halves.
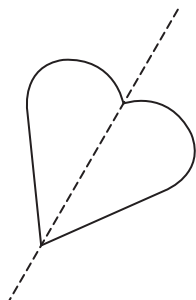
yes

1.

2.

3.
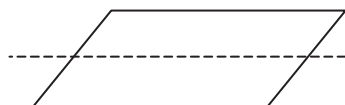

4.

Circle the symmetric figures.

5.