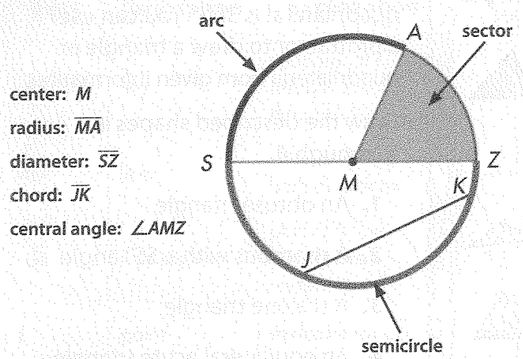
Set D, pages 282–283

A circle is a closed plane figure made up of all points the same distance from a point called the center. Review these parts of a circle.



center: M

radius: $\overline{MA}$

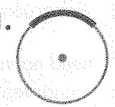
diameter: $\overline{SZ}$

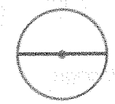
chord: $\overline{JK}$

central angle: $\angle AMZ$

Remember that the sum of the adjacent central angles of any circle equals 360°.

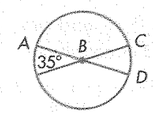
In **1** and **2**, identify the part of the circle shown in red.

1. 

2. 

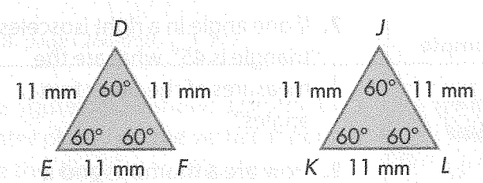
3. What is the length of the diameter of a circle with a 2-inch radius?

4. What are the measures of $\angle CBD$ and $\angle ABC$?



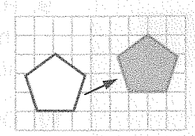
Set E, pages 284–286

These triangles are congruent. Corresponding sides and angles of congruent polygons are congruent.

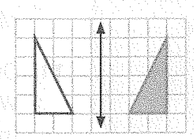


A transformation can be used to move a figure to a new position without changing its size or shape.

A **translation** moves a figure in a straight direction.

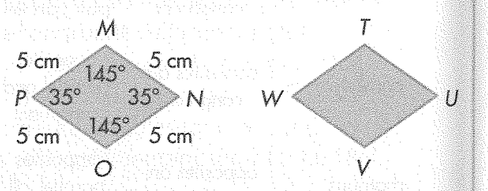


A **reflection** of a figure gives its mirror image over a line.

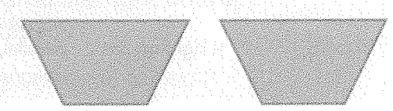


Remember that two figures are congruent if the corresponding sides and angles have the same measures.

1. These quadrilaterals are congruent. Find the measure of $\angle T$, $\overline{TU}$, and $\angle U$.

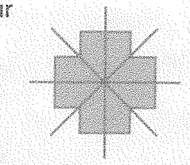


2. Tell whether these figures are related by a translation, a reflection, a glide reflection, or a rotation.



Set F, pages 288–289

The figure to the right has four lines of reflection symmetry.

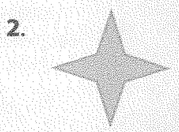


The star figure can rotate onto itself in less than a full turn. It has 72° ($\frac{1}{5}$-turn) rotational symmetry.

Remember that a figure has reflection symmetry if it can be reflected onto itself.

For **1** and **2**, tell whether each figure has reflection symmetry, rotational symmetry, or both.

1. 

2. 

Set G, pages 290–291

Figure 1 has 3 rows and 3 columns of squares. For each successive figure, another row and column of squares are added.

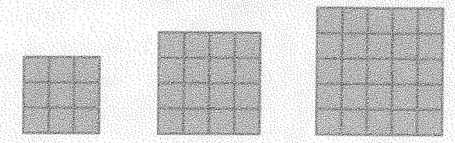


Figure 1 Figure 2 Figure 3

If this pattern continues for 3 more figures, how many squares will be in Figure 6?

Make a table and find the pattern.

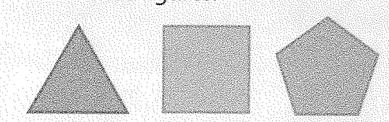
Data

Figure	Rows	Columns	Total Squares
1	3	3	9
2	4	4	16
3	5	5	25
4	6	6	36
5	7	7	49
6	8	8	64

There will be 64 squares in Figure 6.

Remember that some problems can be solved by finding a pattern and making a table to extend the pattern.

1. Find the pattern and draw the next three figures.



2. Find the pattern and complete the table.

Data

# of Pounds	Total Cost
2	$3.50
3	$5.25
4	$7.00
5	
6	