



## Study Guide: Review

## Vocabulary

|                         |     |                     |     |                      |     |
|-------------------------|-----|---------------------|-----|----------------------|-----|
| acute angle             | 411 | line symmetry       | 457 | right angle          | 411 |
| acute triangle          | 429 | obtuse angle        | 411 | right triangle       | 429 |
| adjacent angles         | 416 | obtuse triangle     | 429 | rotation             | 453 |
| angle                   | 410 | parallel lines      | 420 | rotational symmetry  | 458 |
| complementary angles    | 417 | parallelogram       | 434 | scalene triangle     | 430 |
| congruent angles        | 416 | perpendicular lines | 420 | skew lines           | 420 |
| congruent figures       | 450 | plane               | 406 | square               | 434 |
| congruent line segments | 430 | point               | 406 | straight angle       | 411 |
| diagonal                | 438 | polygon             | 438 | supplementary angles | 417 |
| equilateral triangle    | 430 | quadrilateral       | 434 | transformation       | 453 |
| isosceles triangle      | 430 | ray                 | 407 | translation          | 453 |
| line                    | 406 | rectangle           | 434 | trapezoid            | 434 |
| line of reflection      | 453 | reflection          | 453 | vertex               | 410 |
| line of symmetry        | 457 | regular polygon     | 438 | vertical angles      | 416 |
| line segment            | 407 | rhombus             | 434 |                      |     |

Complete the sentences below with vocabulary words from the list above.

1. A quadrilateral with exactly two parallel sides is called a(n) \_\_\_\_\_.
2. A(n) \_\_\_\_\_ is a closed plane figure formed by three or more line segments.

## EXAMPLES

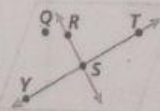
## EXERCISES

## 8-1 Building Blocks of Geometry (pp. 406–409)

- Use the diagram.

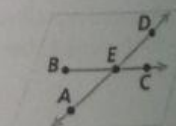
Name a line.  $\overleftrightarrow{RS}$

Name a line segment.  $\overline{ST}$



Use the diagram.

3. Name two lines.
4. Name a ray.



## 8-2 Measuring and Classifying Angles (pp. 410–413)

- Classify each angle as acute, right, obtuse, or straight.

$$m\angle A = 80^\circ$$

$80^\circ < 90^\circ$ , so  $\angle A$  is acute.

Classify each angle as acute, right, obtuse, or straight.

$$5. m\angle x = 60^\circ$$

$$7. m\angle x = 45^\circ$$

$$6. m\angle x = 100^\circ$$

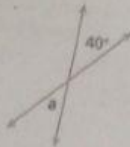
$$8. m\angle x = 180^\circ$$

## EXAMPLES

### 8-3 Angle Relationships (pp. 416–419)

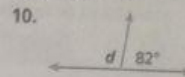
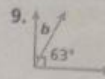
- Find the unknown angle measure.

$m\angle a = 40^\circ$  Vertical angles are congruent.



## EXERCISES

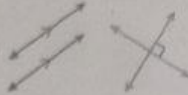
Find each unknown angle measure.



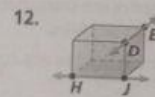
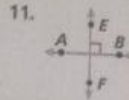
### 8-4 Classifying Pairs of Lines (pp. 420–423)

- Classify each pair of lines.

The red lines are parallel.  
The blue lines are perpendicular.



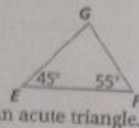
Classify each pair of lines.



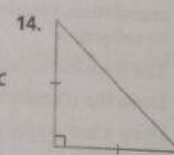
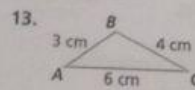
### 8-5 Triangles (pp. 429–432)

- Classify the triangle using the given information.

$m\angle G + 45^\circ + 55^\circ = 180^\circ$   
 $m\angle G = 80^\circ$ , so  $\triangle EFG$  is an acute triangle.

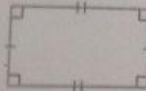


Classify the triangle using the given information.



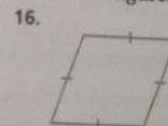
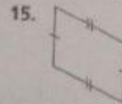
### 8-6 Quadrilaterals (pp. 434–437)

- Give the most exact name for the figure.



The most exact name is rectangle.

Give the most exact name for the figure.

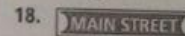


### 8-7 Polygons (pp. 438–441)

- Name the polygon and tell whether it appears to be regular or not regular.  
It is a regular octagon.



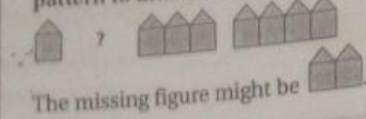
Name each polygon and tell whether it appears to be regular or not regular.



## EXAMPLES

## 8-8 Geometric Patterns (pp. 444–447)

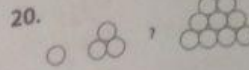
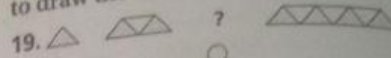
- Identify a possible pattern. Use the pattern to draw the missing figure.



The missing figure might be

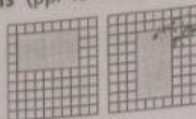
## EXERCISES

Identify a possible pattern. Use the pattern to draw the missing figure.



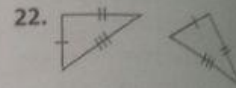
## 8-9 Congruent Polygons (pp. 450–452)

- Decide whether the figures are congruent. If not, explain.



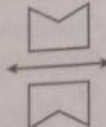
These figures are congruent.

Decide whether the figures in each pair are congruent. If not, explain.



## 8-10 Transformations (pp. 453–456)

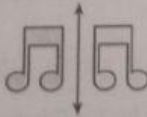
- Tell whether the transformation is a translation, rotation, or reflection.



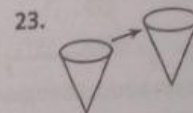
The transformation is a reflection.

- Draw the transformation.

Draw a horizontal reflection.



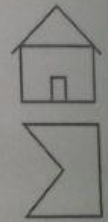
Tell whether the transformation is a translation, rotation, or reflection.



Draw each transformation.

- Draw a translation.

- Draw a 90° clockwise rotation about the point.



## 8-11 Symmetry (pp. 457–461)

- Determine whether the dashed line appears to be a line of symmetry. Does the figure have rotational symmetry?



The line appears to be a line of symmetry. The figure does not have rotational symmetry.

Determine whether the dashed line appears to be a line of symmetry. Then tell whether the figure has rotational symmetry.

