

Geometry

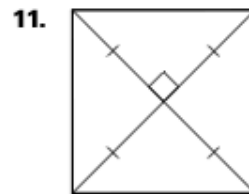
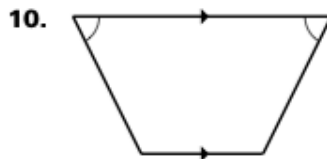
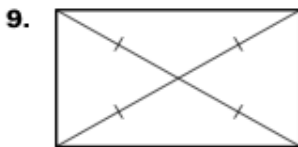
Worksheet 8.6

Name _____

Match the property on the left with all of the quadrilaterals that have the property.

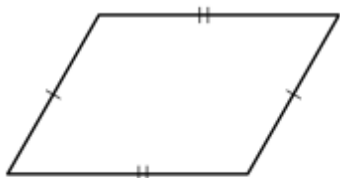
- | | |
|---|------------------------|
| 1. Both pairs of opposite sides are parallel. | A. Parallelogram |
| 2. Both pairs of opposite sides are congruent. | B. Rectangle |
| 3. Both pairs of opposite angles are congruent. | C. Rhombus |
| 4. Exactly one pair of opposite sides are parallel. | D. Square |
| 5. Exactly one pair of opposite sides are congruent. | E. Trapezoid |
| 6. Exactly one pair of opposite angles are congruent. | F. Isosceles Trapezoid |
| 7. Diagonals are congruent. | G. Kite |
| 8. Diagonals are perpendicular. | |

Give the most specific name for the quadrilateral. *Explain.*

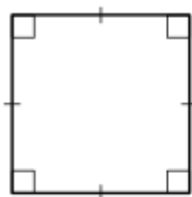


Tell whether enough information is given in the diagram to classify the quadrilateral by the indicated name. *Explain.*

12. Parallelogram



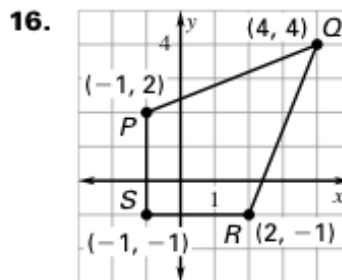
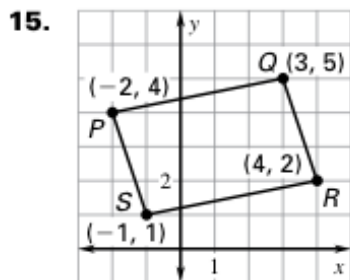
13. Square



14. Trapezoid

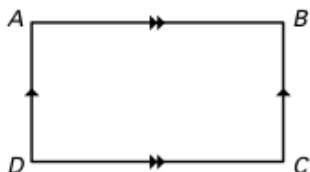


Give the most specific name for quadrilateral *PQRS*. Justify your answer.

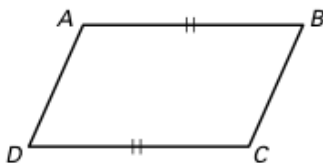


Which pairs of segments or angles must be congruent so that you can prove that *ABCD* is the indicated quadrilateral? Explain. There may be more than one right answer.

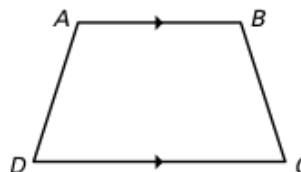
17. Rectangle



18. Parallelogram



19. Isosceles Trapezoid

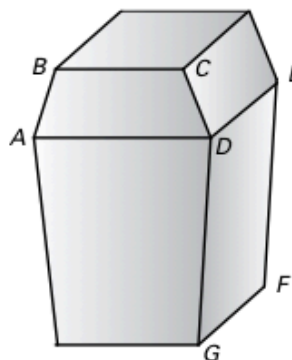


In Exercises 20 and 21, use the following information.

Gem Cutting There are different ways of cutting gems to enhance the beauty of the jewel. One of the earliest shapes used for diamonds is called the *table cut*, as shown. Each face of a cut gem is called a *facet*.

20. $\overline{BC} \parallel \overline{AD}$, \overline{AB} and \overline{DC} are not parallel. What shape is the facet labeled *ABCD*?

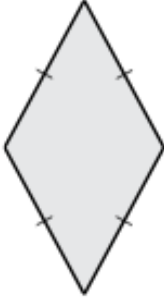
21. $\overline{DE} \parallel \overline{GF}$, \overline{DG} and \overline{EF} are congruent, but not parallel. What shape is the facet labeled *DEFG*?



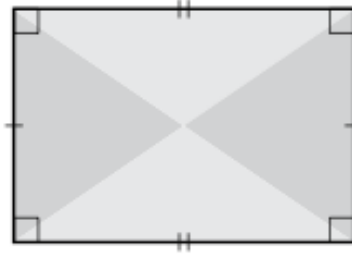
In Exercises 22–24, use the following information.

Wall Hangings Decorative wall hangings are made in a variety of shapes. What type of special quadrilateral is shown?

22.



23.



24.

