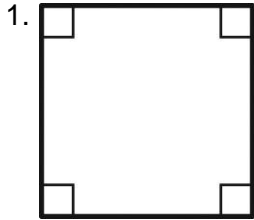
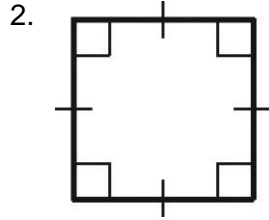


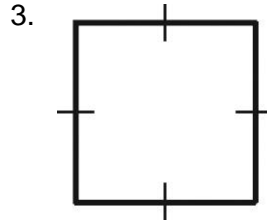
Tell whether each figure is a parallelogram, rectangle, rhombus, or square based on the information given. Use the most specific name possible.



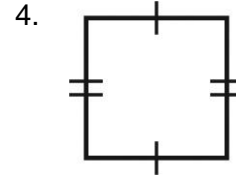
Rectangle



Square



Rhombus



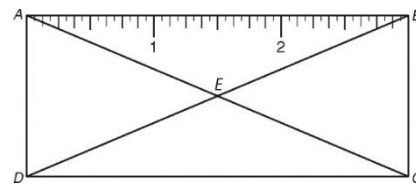
Parallelogram

The part of a ruler shown is a rectangle with  $AB = 3$  inches and  $BD = 3\frac{1}{4}$  inches. Find each length.

5.  $DC = 3$  inches

6.  $AC = 3\frac{1}{4}$  inches

7.  $DE = 1\frac{5}{8}$  inches



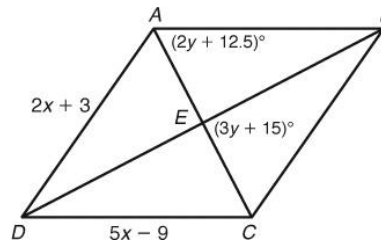
$VWXY$  is a rhombus. Find each measure. Show work.

8.  $AB = 11$  ( $x=4$ )

9.  $m\angle BEC = 90^\circ$   $y=25$

10.  $m\angle BAE = 62.5^\circ$

11.  $m\angle DAB = 125^\circ$

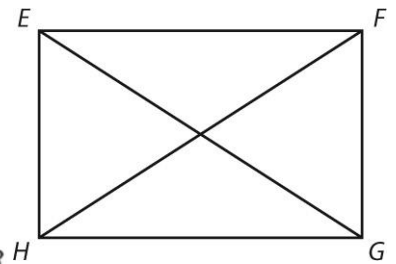


$EFGH$  is a rectangle. Complete the statements that must be true about  $EFGH$ .

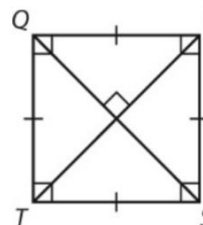
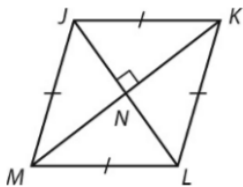
12.  $\overline{EG} \cong \overline{FH}$

13.  $m\angle EHG = 90^\circ$

14.  $\overline{EH} \parallel \overline{FG}$



$JKLM$  is a rhombus and  $QRST$  is a square. Fill in the missing information.



15. If  $ML = 32$ ,  $LK = 32$

16.  $m\angle MNL = 90^\circ$

17.  $\overline{QT} \cong \overline{ST} \cong \overline{RQ} \cong \overline{SR}$

9.5 Show work for 4-22.

**ABCD is a kite. Use the figure to find each measure in Problems 1–3.**

1.  $AB$

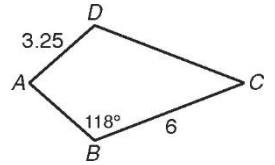
**3.25**

2.  $m\angle D$

**118°**

3.  $CD$

**6**



For 4-7, in kite  $ABCD$ ,  $m\angle BCE = 28^\circ$  and  $m\angle BAE = 57^\circ$ . Find each measure.

4.  $m\angle CBE$

**62°**

5.  $m\angle ABE$

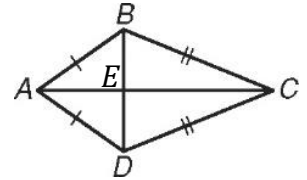
**33°**

6.  $m\angle ABC$

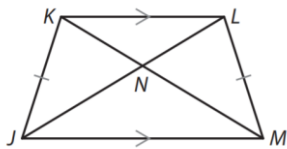
**95°**

7.  $m\angle ADC$

**95°**

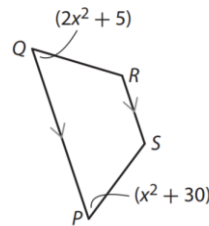


8.  $LJ = 19.3$  and  $KN = 8.1$ . Determine  $MN$ .



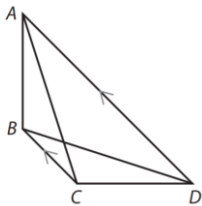
**11.2**

9. Find the positive value of  $x$  so the trapezoid  $PQRS$  is isosceles.



**5**

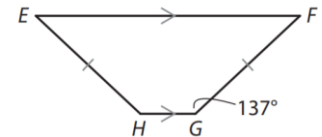
10.  $AC = 3y + 12$  and  $BD = 27 - 2y$ . Determine the Value of  $y$  so that trapezoid  $ABCD$  is isosceles.



**y = 3**

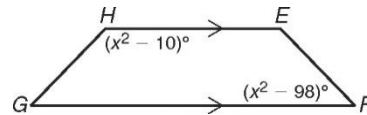
11. Find  $m\angle E$ .

**43°**



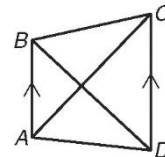
12. Find the values of  $x$  so that  $EFGH$  is isosceles.

**-12 or 12**



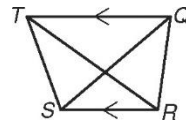
13.  $BD = 7a - 0.5$  and  $AC = 5a + 2.3$ . Find the value of  $a$  so that  $ABCD$  is isosceles.

**1.4**

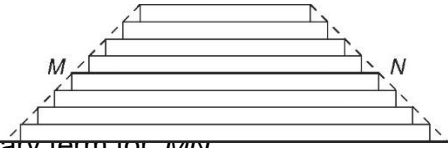


14.  $QS = 8z^2$ , and  $RT = 6z^2 + 38$ . Find the values of  $z$  so that  $QRST$  is isosceles.

**$-\sqrt{19}$  or  $\sqrt{19}$**



Use the figure for Problems 15 and 16. The figure shows a *ziggurat*. A *ziggurat* is a stepped, flat-topped pyramid that was used as a temple by ancient peoples of Mesopotamia. The dashed lines show that a ziggurat has sides roughly in the shape of a trapezoid.



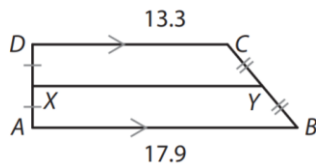
15. Each “step” in the ziggurat has equal height. Give the vocabulary term for  $MN$ .

**midsegment**

16. The bottom of the ziggurat is 27.3 meters long, and the top of the ziggurat is 11.6 meters long. Find  $MN$ .

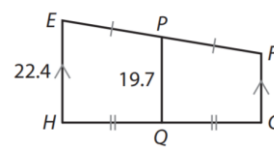
**19.45 meters**

17. In trapezoid  $ABCD$ , find  $XY$ .



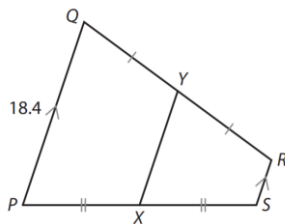
**15.6**

18. In trapezoid  $EFGH$ , find  $FG$ .



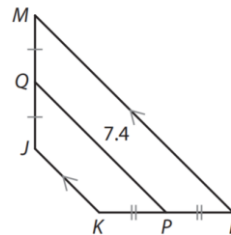
**17**

19. In trapezoid  $PQRS$ ,  $PQ = 4RS$ . Find  $XY$ .



**11.5**

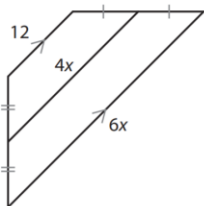
20. In trapezoid  $JKLM$ ,  $PQ = 2JK$ . Find  $LM$ .



**11.1**

For 21-22, find the length of the midsegment of each trapezoid.

21. **24**



22. **14**

