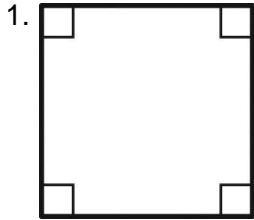
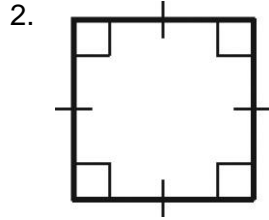
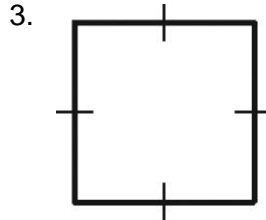
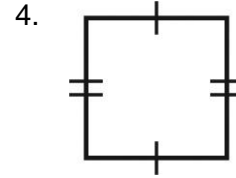


Tell whether each figure is a parallelogram, rectangle, rhombus, or square based on the information given. Use the most specific name possible.



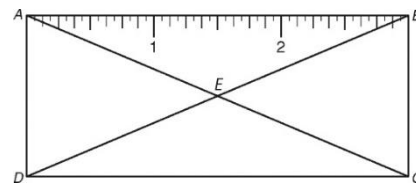






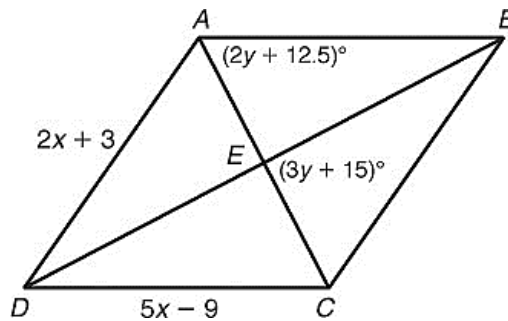
The part of a ruler shown is a rectangle with $AB = 3$ inches and $BD = 3\frac{1}{4}$ inches. Find each length.

- 5. $DC =$ _____
- 6. $AC =$ _____
- 7. $DE =$ _____



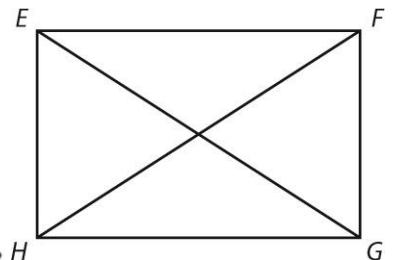
$VWXY$ is a rhombus. Find each measure. Show work.

- 8. $AB =$ _____
- 9. $m\angle BEC =$ _____ $y =$ _____
- 10. $m\angle BAE =$ _____
- 11. $m\angle DAB =$ _____

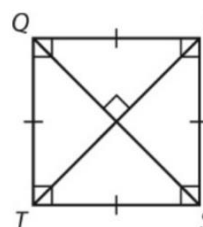
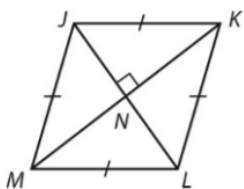


$EFGH$ is a rectangle. Complete the statements that must be true about $EFGH$.

- 12. $\overline{EG} \cong$ _____
- 13. $m\angle EHG =$ _____
- 14. $\overline{EH} \parallel$ _____



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



- 15. If $ML = 32$, $LK =$ _____
- 16. $m\angle MNL =$ _____
- 17. $\overline{QT} \cong$ _____ \cong _____ \cong _____

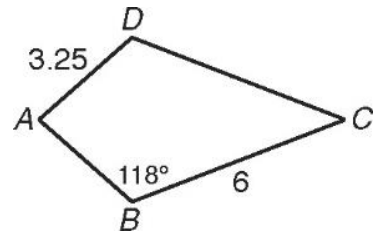
9.5 Show work for 4-22.

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

1. AB

2. $m\angle D$

3. CD



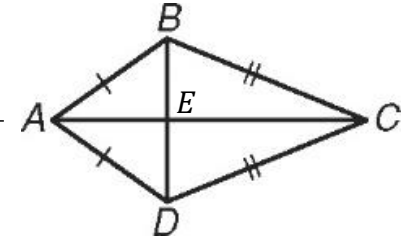
For 4-7, in kite $ABCD$, $m\angle BCE = 28^\circ$ and $m\angle BAE = 57^\circ$. Label the kite. Find each measure.

4. $m\angle CBE$

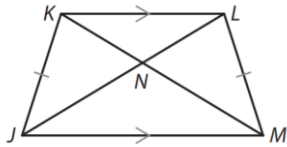
5. $m\angle ABE$

6. $m\angle ABC$

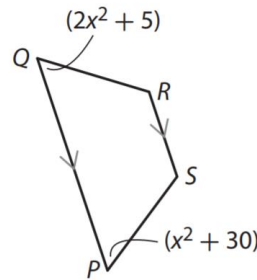
7. $m\angle ADC$



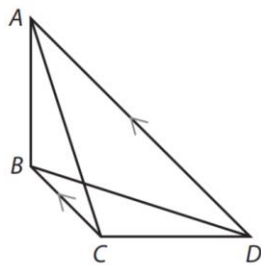
8. $LJ = 19.3$ and $KN = 8.1$. Determine MN .



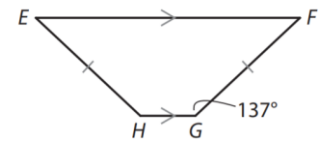
9. Find the positive value of x so the trapezoid $PQRS$ is isosceles.



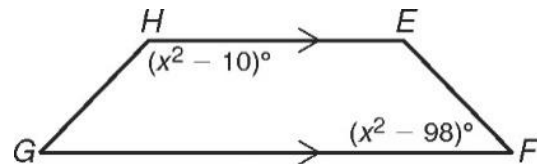
10. $AC = 3y + 12$ and $BD = 27 - 2y$. Determine the Value of y so that trapezoid $ABCD$ is isosceles.



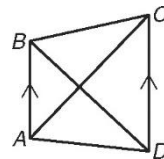
11. Find $m\angle E$.



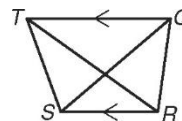
12. Find the values of x so that $EFGH$ is isosceles.



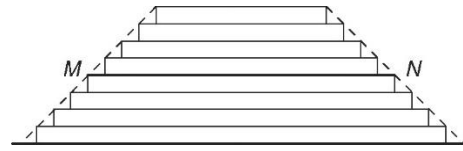
13. $BD = 7a - 0.5$ and $AC = 5a + 2.3$. Find the value of a so that $ABCD$ is isosceles.



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



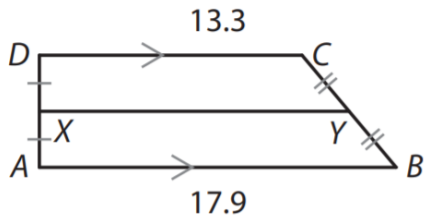
Use the figure for Problems 15 and 16. The figure shows a *ziggurat*. A *ziggurat* is a stepped, flat-topped pyramid that was used as a temple by ancient peoples of Mesopotamia. The dashed lines show that a ziggurat has sides roughly in the shape of a trapezoid.



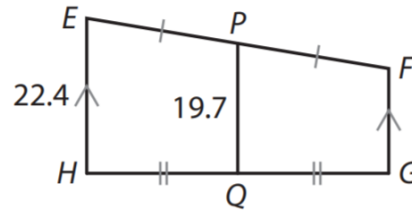
15. Each "step" in the ziggurat has equal height. Give the vocabulary term for \overline{MN} .

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

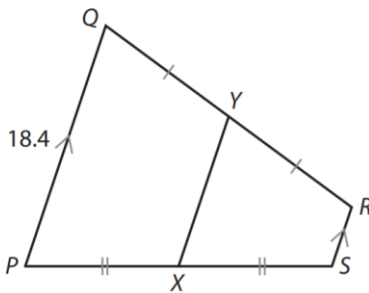
17. In trapezoid $ABCD$, find XY .



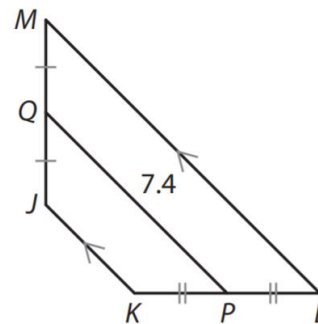
18. In trapezoid $EFGH$, find FG .



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

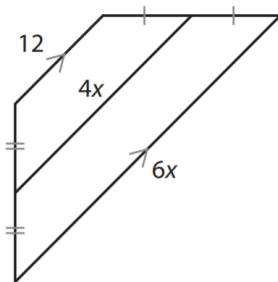


20. In trapezoid $JKLM$, $PQ = 2JK$. Find LM .



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

21.



22.

