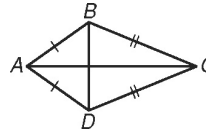


In kite $ABCD$, $m\angle BAC = 35^\circ$ and $m\angle BCD = 44^\circ$.
 For Problems 1–3, find each measure.

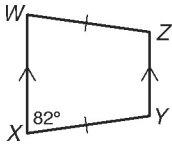


1. $m\angle ABD$

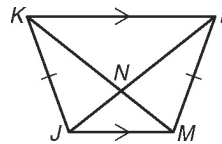
2. $m\angle DCA$

3. $m\angle ABC$

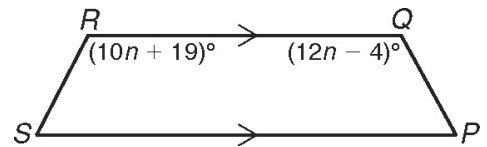
5. Find $m\angle Z$.



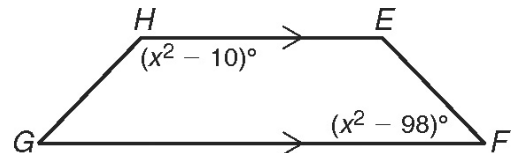
6. $KM = 7.5$, and $NM = 2.6$. Find LN .



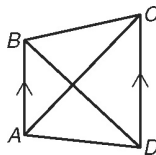
7. Find the value of n so that $PQRS$ is isosceles.



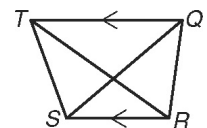
8. Find the value of x so that $EFGH$ is isosceles.



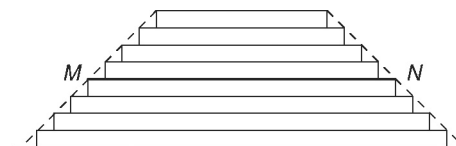
9. $BD = 7a - 0.5$ and $AC = 5a + 2.3$. Find the value of a so that $ABCD$ is isosceles.



10. $QS = 8z^2$, and $RT = 6z^2 + 50$. Find the value of z so that $QRST$ is isosceles.



Use the figure for Problems 11 and 12. 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.



11. Each “step” in the ziggurat has equal height. Give the vocabulary term for \overline{MN} .

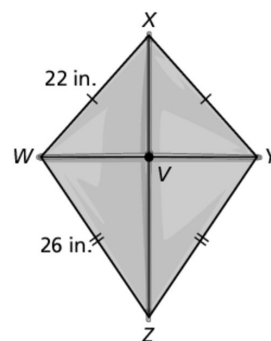
12. The bottom of the ziggurat is 27.3 meters long, and the top of the ziggurat is 11.6 meters long. Find MN .

13. The figure shows a window in the shape of a kite.

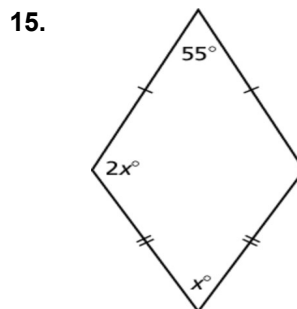
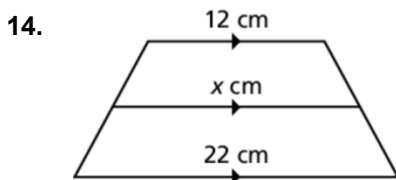
a. Find $m\angle X VW$.

b. Find \overline{XY} .

c. Which angle is congruent to $\angle XYZ$?



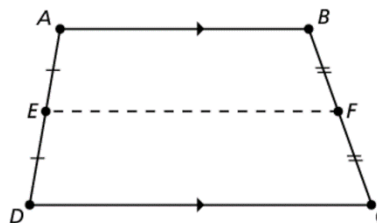
In Exercises 14 and 15, find the value of x .



Find the indicated measurement using quadrilateral $ABCD$ as a reference.

16. $\overline{AD} \cong \overline{BC}$, $m\angle D = 75^\circ$. Find $m\angle A$.

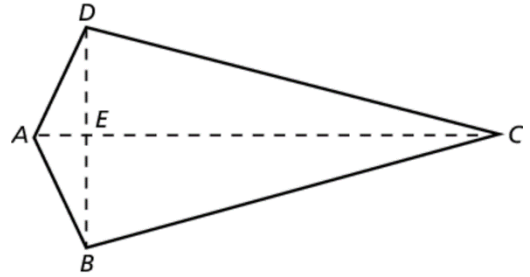
17. $AB = 17$, $DC = 25$. Find EF .



Find the indicated measurement using **quadrilateral $ABCD$** as a reference.

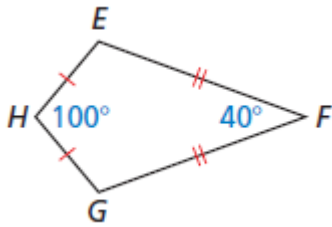
18. $\overline{AD} \cong \overline{AB}$, $\overline{DC} \cong \overline{BC}$, $m\angle A = 130^\circ$, $m\angle C = 30^\circ$.

Find $m\angle B$.

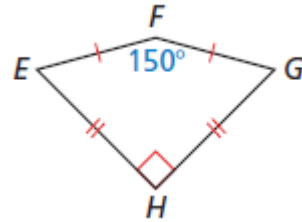


In 19 – 22, find $m\angle G$.

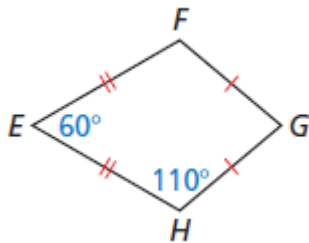
19.



20.



21.



22.

