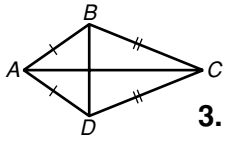
Name _____ Date _____ Class _____

LESSON 6-6

Practice B

Properties of Kites and Trapezoids

In kite *ABCD*, m∠*BAC* = 35° and m∠*BCD* = 44°. For Exercises 1–3, find each measure.

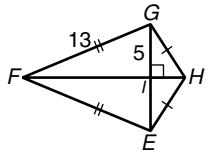


1. m∠*ABD* _____

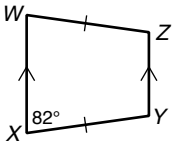
2. m∠*DCA* _____

3. m∠*ABC* _____

4. Find the area of △*EFG*. _____



5. Find m∠*Z*.



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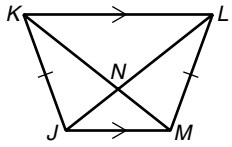
6. *KM* = 7.5, and *NM* = 2.6. Find *LN*.



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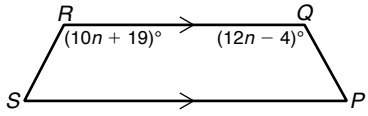
7. Find the value of *n* so that *PQRS* is isosceles.



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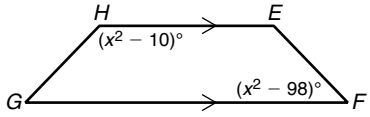
8. Find the value of *x* so that *EFGH* is isosceles.



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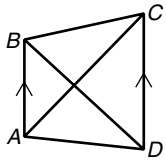
9. *BD* = 7*a* − 0.5, and *AC* = 5*a* + 2.3. Find the value of *a* so that *ABCD* is isosceles.



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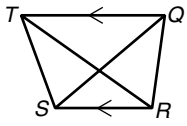
10. *QS* = $8z^2$, and *RT* = $6z^2 + 38$. Find the value of *z* so that *QRST* is isosceles.



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Use the figure for Exercises 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 $\overline{MN}$.

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

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