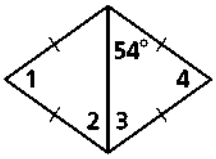
Name_____ Class_____ Date_____

Practice 6–4

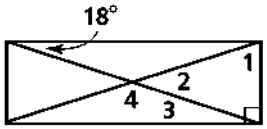
Special Parallelograms

For each parallelogram, (a) choose the best name, and then (b) find the measures of the numbered angles.

1.



2.



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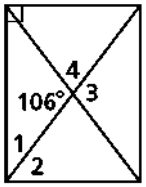

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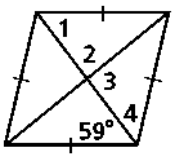
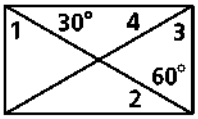
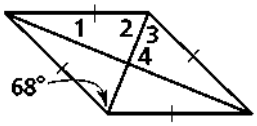


5.

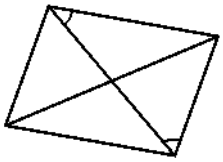


6.



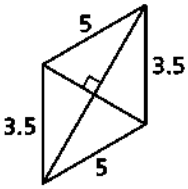
The parallelograms below are not drawn to scale. Can the parallelogram have the conditions marked? If not, write *impossible.* Explain your answer.

7.



8.

9.



***HIJK* is a rectangle. Find the value of *x* and the length of each diagonal.**

10. $HJ = x$ and $IK = 2x - 7$

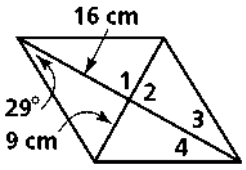
11. $HJ = 3x + 5$ and $IK = 5x - 9$

12. $HJ = 3x + 7$ and $IK = 6x - 11$

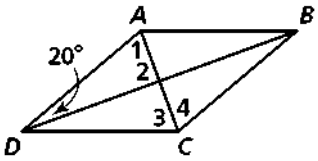
13. $HJ = 19 + 2x$ and $IK = 3x + 22$

For each rhombus, (a) find the measures of the numbered angles, and then (b) find the area.

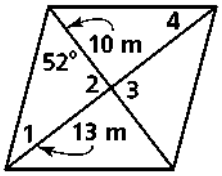
14.



15. $AC = 8$ in.
$BD = 22$ in.



16.



Determine whether the quadrilateral can be a parallelogram. If not, write *impossible.* Explain your answer.

17. One pair of opposite sides is parallel, and the other pair is congruent.

18. Opposite angles are congruent and supplementary, but the quadrilateral is not a rectangle.

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