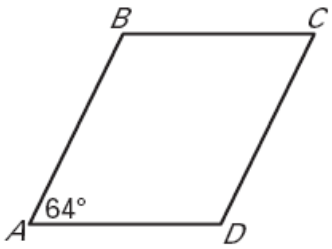
Geometry (A) Name : _____

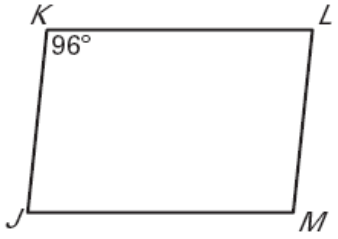
8.2 Properties of Parallelograms HW Date : _____ Period : ___

Find the measure of the indicated angle in the parallelogram.

1. Find $m\angle B$.

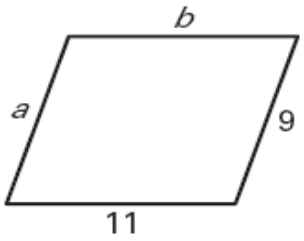


2. Find m$\angle M$



Find the value of each variable in the parallelogram.

3.



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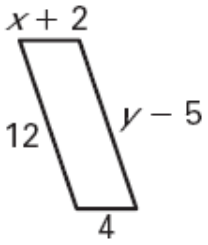

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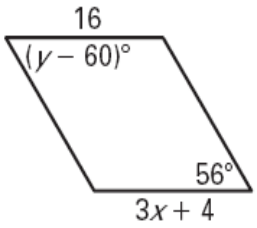

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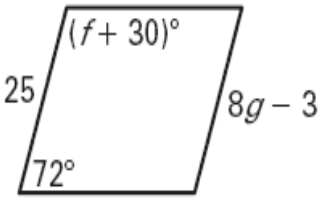

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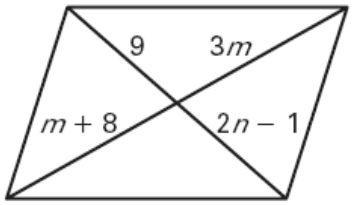
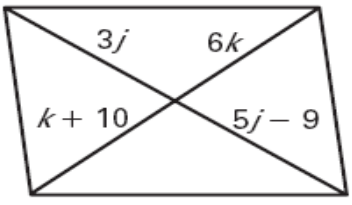
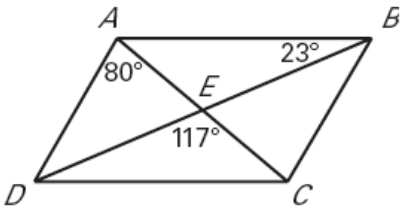


8.



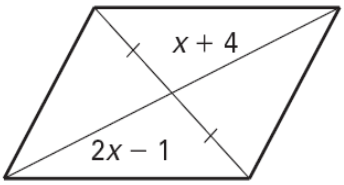
Find the indicated measure in $\square ABCD$.

9. $m\angle AEB$
10. $m\angle BAE$
11. $m\angle AED$
12. $m\angle ECB$
13. $m\angle BAD$
14. $m\angle DCE$
15. $m\angle ADC$
16. $m\angle DCB$



For what value of x is the quadrilateral a parallelogram?

17.



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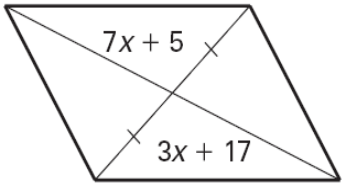

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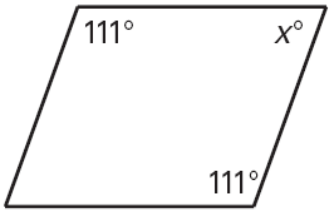
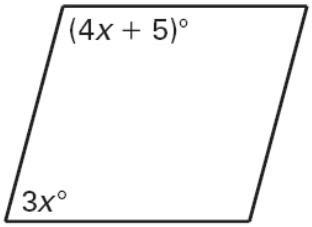


20.



21. In $\square WXYZ$, $m\angle W$ is 50 degrees more than $m\angle X$. Sketch $\square WXYZ$ and find the measure of each interior angle.

22. In parallelogram RSTU, the ratio of RS to ST is 5 : 3. Find RS if the perimeter of $\square RSTU$ is 64 inches.

Answer Key: 1) 116° 2) 96° 3) a = 9, b = 11 4) x = 2, y = 17 5) x = 4, y = 116 6) f = 78, g = 3.5 7) n = 5, m = 4 8) j = 4.5, k = 2 9) 117° 10) 40° 11) 63° 12) 80° 13) 120° 14) 40° 15) 60° 16) 120° 17) x = 5 18) x = 3 19) 69° 20) x = 25 21) x = 65; Angles: 65°, 65°, 115°, 115° 22) x = 4, RS = 20 inches