Name: Key

Polygon Warm-up 6.1-6.4

Find the interior angle sum for each polygon. Round your answer to the nearest tenth if necessary.

1) regular 23-gon $S=180(n-2)$ $S=180(23-2)$ $S=3{,}780°$

Find the measure of one interior angle in each polygon. Round your answer to the nearest tenth if necessary.

2) regular 20-gon $\frac{180(20-2)}{20} = 162°$

Find the measure of one exterior angle in each polygon. Round your answer to the nearest tenth if necessary.

3) regular 14-gon $\frac{360}{14} = 25.7°$

4.) Find the sum of exterior angle measures of a 43-gon.

360°

5.) Find the number of sides a regular polygon has if the measure of an interior angle is 135°.

$135 = \frac{180(n-2)}{n}$ $135n = 180n - 360$ $-45n = -360$ $n = 8$ sides

6.) Circle all of the properties that hold true for a parallelogram.

Opposite angles are =	opposite sides are //	opposite side are =	diagonals bisect the angles
Diagonals bisect each other	Diagonals are congruent	diagonals are ⊥	Sides are ⊥
One pair of // sides	Consecutive interior angles are suppl.		

7.) Solve through factoring:

$x^2 + 9 = 2x + 44$

$x^2 - 2x - 35 = 0$

$(x-7)(x+5) = 0$

$x-7=0$ $x=7$ $x+5=0$ $x=-5$

use these to help w/ homework

8.) Solve through factoring:

$x^2 - 1 = 3x + 9$

$x^2 - 3x - 10 = 0$

$(x-5)(x+2) = 0$

$x-5=0$ $x=5$ $x+2=0$ $x=-2$