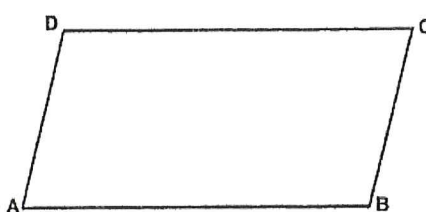


Name: key

Hour: _____

Practice Examples: Parallelogram Properties HW DAY 1

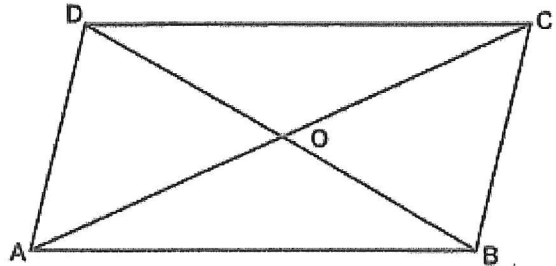


- Four sides.
- Both pairs of opposite sides are parallel.
- Both pairs of opposite sides are congruent.
- Both pairs of opposite angles are congruent.
- Diagonals bisect each other.

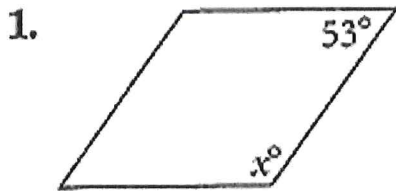
Complete the following  ABCD.

1. $\overline{AB} \parallel \overline{DC}$
3. $\angle A \cong \angle C$
5. $\overline{OB} \cong \overline{OD}$

2. $\overline{AB} \cong \overline{DC}$
4. $\overline{OA} \cong \overline{OC}$
6. $\overline{AD} \cong \overline{CB}$

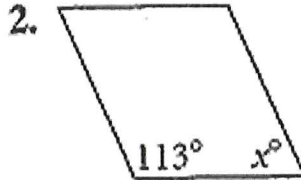


ANGLES OF PARALLELOGRAMS PRACTICE:

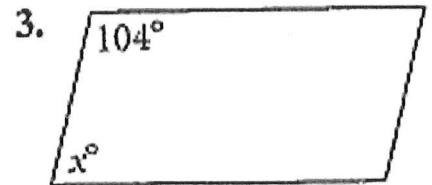


consecutive int \angle s
are suppl. for all

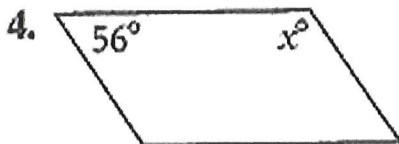
127°



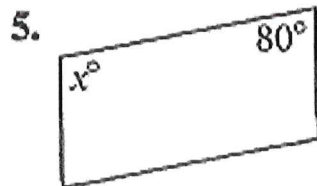
67°



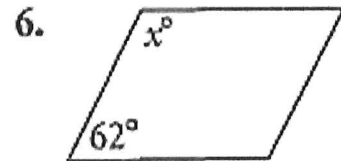
76°



124°



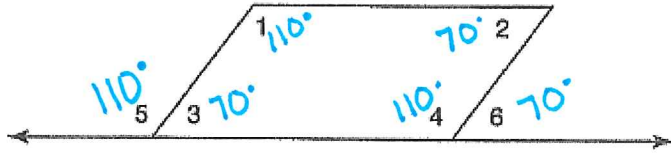
100°



118°

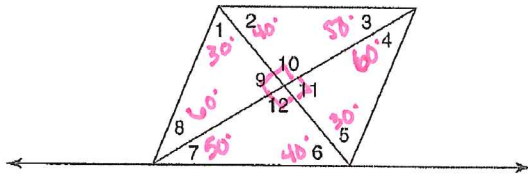
MORE ANGLES AND SOME SIDES OF PARALLELOGRAMS:

7. This figure is a parallelogram. The $m\angle 5$ is 110.

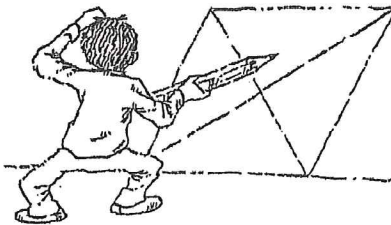


1. What is $m\angle 1$? 110°
2. What is $m\angle 2$? 70°
3. What is $m\angle 3$? 70°
4. What is $m\angle 4$? 110°
5. What is $m\angle 6$? 70°

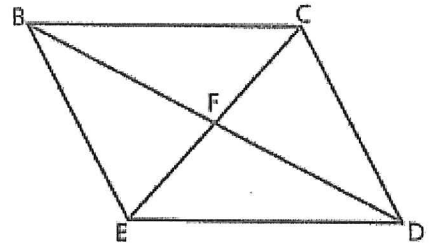
9. Find the measure of the indicated angles in this parallelogram when $m\angle 5 = 30$, $m\angle 6 = 40$, and $m\angle 7 = 50$.



6. What is $m\angle 1$? 30°
7. What is $m\angle 2$? 40°
8. What is $m\angle 8$? 60°
9. What is $m\angle 11$? 90°
10. What is $m\angle 12$? 90°

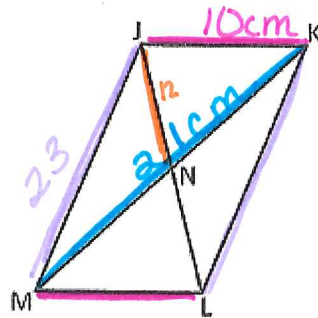


8. The following is a parallelogram. Name all congruent segments.

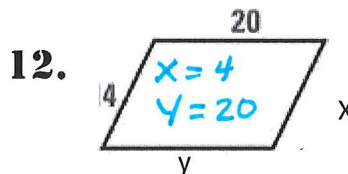
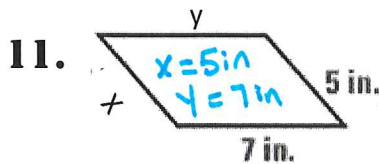


$BC \cong ED$, $BE \cong CD$
 $EF \cong FC$, $BF \cong FD$

10. The following is a parallelogram. $JK = 10$ cm, $MK = 21$ cm, $JN = 12$ cm, $JM = 23$ cm. Find the measures of the following segments:



- $KL = 23$ cm
 $LM = 10$ cm
 $JL = 24$ cm
 $NL = 12$ cm
 $MN = 10.5$ cm
 $KN = 10.5$ cm



#11 + #12 op. sides are \cong

Directions: Use the Pythagorean Theorem or Distance Formula to find the distance of each segment, and then find the midpoint of each segment and slope. You must simplify radicals and fractions!!!! You must show all work for each problem.

13. A(-4,2), B(8,-6)

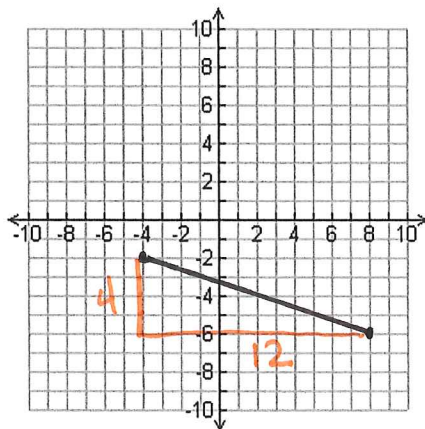
$$4^2 + 12^2 = c^2$$

$$\sqrt{160} = c$$

$$4\sqrt{10} = c$$

$$\left(\frac{-4+8}{2}, \frac{2+(-6)}{2}\right)$$

$$\left(\frac{4}{2}, \frac{-4}{2}\right)$$



Distance: $4\sqrt{10}$

Midpoint: $(2, -2)$

Slope: $\frac{-4}{12} = \frac{-1}{3}$

Rise
Run