Geometry
Worksheet - Kites

1. Given: AROW is a kite
$\mathrm{m} \angle 1=40^{\circ}$
$\mathrm{m} \angle 10=30^{\circ}$
$A O=10$

Find: $\begin{aligned} m \angle 2 & = \\ m \angle 3 & =\end{aligned}$
Name $\qquad$
$\qquad$
$\mathrm{m} \angle 3=$ $\qquad$
$\mathrm{m} \angle 4=$ $\qquad$
$\mathrm{m} \angle 5=$ $\qquad$
$\mathrm{m} \angle 6=$ $\qquad$
$\mathrm{m} \angle 7=$ $\qquad$
$\mathrm{m} \angle 8=$ $\qquad$
$\mathrm{m} \angle 9=$ $\qquad$

$$
\mathrm{m} \angle 11=
$$

$\mathrm{m} \angle 12=$ $\qquad$
MO = $\qquad$

2. Find $x$.
$x=$ $\qquad$

3. Find $x$
$x=$ $\qquad$

4. Kite FGHJ

KF = $\qquad$

5. $x=$ $\qquad$

6. $A S=16$
$U I=$ $\qquad$
IT = $\qquad$
UT = $\qquad$

7. The perimeter of a kite is 66 cm . The length of one of its sides is 3 cm . less than twice the length of another. Find the length of each side of the kite.

In the table below, place a check in each box that applies to all figures in the listed category.

| Category | No Sides <br> Parallel | Exactly 1 Pair <br> of Parallel <br> Sides | 2 Pairs of <br> Parallel <br> Sides | Four Right <br> Angles | Four <br> Congruent <br> Sides |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Trapezoid |  |  |  |  |  |
| Parallelogram |  |  |  |  |  |
| Rectangle |  |  |  |  |  |
| Rhombus |  |  |  |  |  |
| Square |  |  |  |  |  |

Determine the most specific classification of each figure described.

1. A parallelogram with four right angles
2. A rectangle with four congruent sides
3. A quadrilateral with two pairs of parallel sides
4. A parallelogram with four congruent sides
5. A rhombus with four right angles
6. A parallelogram with four congruent sides and four congruent angles

Determine whether each statement is always true, sometimes true, or never true then fill in the blank with always, sometimes, or never.
7. A parallelogram is $\qquad$ a rectangle.
8. A rectangle is $\qquad$ a parallelogram.
9. A square is $\qquad$ a rhombus.

