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Worksheet \#5

## Geometry

Calculate the measure of each of the unknowns.
1.


$$
a
$$

4. 



$$
\underline{x} \quad \underline{z}
$$

8. 


$\underline{x}$
$a$ $\qquad$
$a$ $\qquad$

5.
3.

c

6.

$a$
$\qquad$ $c$
9.

m
10.

11.

12.
$\underline{a}$ $\underline{ }$


1. $a=65^{\circ}$ 2. $a=70^{\circ}, b=40^{\circ}$ 3. $c=120^{\circ}$ 4. $x=78^{\circ}, y=102^{\circ}$ 5. $a=92^{\circ}$ 6. $a=30^{\circ}, b=75^{\circ}, c=105^{\circ}$ 7. $x=48^{\circ}, y=42^{\circ}, z=48^{\circ}$ 8. $x=82^{\circ}$ 9. $m=22.5^{\circ}$ 10. $b=25^{\circ}, c=65^{\circ}$ 11. $a=62^{\circ}, b=43^{\circ}, c=75^{\circ}, d=62^{\circ}$ 12. $a=40^{\circ}, b=30^{\circ}$
2. $x=45^{\circ}$ 12. $x=40^{\circ}, y=60^{\circ}$

# Geometry Word Problems Practice 

Solve each of the following problems. Include let statements, an equation, solving steps, and a concluding statement.

1. One angle is $32^{\circ}$ more than another. If the angles are supplementary, what is the measure of each angle?
2. One angle is eight more than three times another angle. If the angles are reflexive, what is the measure of each angle?
3. The first angle in a triangle is $30^{\circ}$ more than the second. The third angle is double the first. What is the measure of each angle?
4. The angles in a hexagon are consecutive odd numbers. What is the measure of each angle?
5. The exterior angles of a nonagon are consecutive numbers. What is the measure of each exterior angle?

Answers:
1] $74^{\circ}, 106^{\circ}$ 2] $88^{\circ}, 272^{\circ}$ 3] $52.5^{\circ}, 22.5^{\circ}, 105^{\circ}$ 4] $115^{\circ}, 117^{\circ}, 119^{\circ}, 121^{\circ}, 123^{\circ}, 125^{\circ}$
5] $36^{\circ}, 37^{\circ}, 38^{\circ}, 39^{\circ}, 40^{\circ}, 41^{\circ}, 42^{\circ}, 43^{\circ}, 44^{o}$

