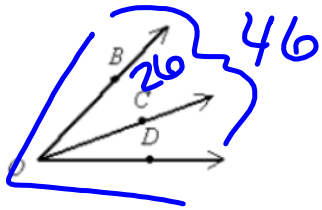
ieometry 1-2 – Unit 3 Practice quiz – Angles **Name** _____

Date_____**P:**_____

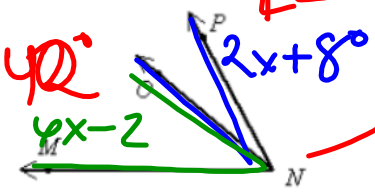
1. If $m\angle BOD = 46°$ and $m\angle BOC = 26°$, then what is the measure of $\angle COD$?



$46-26=x$

$m\angle COD = x = 20°$

2. $m\angle PNO = (2x + 8)°$ and $m\angle MNO = (6x - 2)°$ and $m\angle PNM = 62°$.
Find $m\angle PNO$ and $m\angle MNO$.



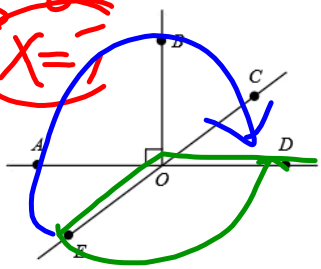
$62° = 2x+8+6x-2$

$62 = 8x+6$ $\quad 56 = 8x$

$-6 \quad -6$ $\quad \frac{8}{8}$

$x = 7$

Use the figure to the right to answer numbers 3 – 6.



3. Name an angle vertical to $\angle AOE$. $\angle COD$ or $\angle$ mr.

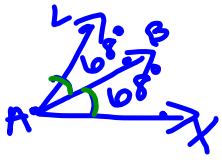
4. Name an angle supplementary to $\angle AOC$. $\angle COD$ or $\angle$

5. Name an angle adjacent to $\angle BOC$. $\angle COD$ or $\angle BOA$

6. Classify ∠EOD as acute, right, obtuse, straight, or reflex angle. Start at E and go ~~CCW~~ CW.

~~Reflex Angle~~ obtuse

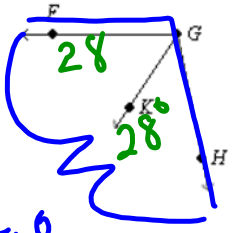
7. $\overrightarrow{AB}$ bisects $\angle LAX$ and $\angle LAB$ measures 68°. Find the measure of $\angle XAB$. Draw a picture.



$m\angle LAX = 68+68 = 136°$

8. *In the figure,* $\overrightarrow{GK}$ *bisects* $\angle FGH$. If $m\angle FGK = 8v - 4$ and $m\angle KGH = 5v + 8$, find *v* and $m\angle FGH$.

EQUATION:_____



$56°$

$8v-4 = 5v+8$

$-5v \quad -5v$

$3v-4 = 8$

$+4 \quad +4$

$3v = 12$

$v = 4$

$8(4)-4$

$32-4$

28

$5(4)+8$

$20+8$

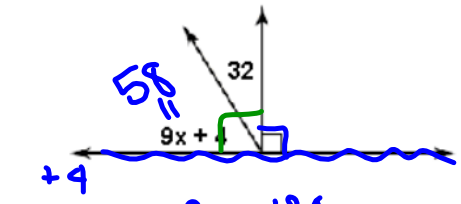
28

9. If $\angle R$ and $\angle S$ are complementary and $m\angle R = 35°$, then $m\angle S =$ 55°

90°

$m\angle = 90° - 35° = 55°$ $\angle R_c = 90 - 35 = 55°$

10. Solve for x.



+4

$9x + 32 + 90 = 180$

EQUATION: $9x + 4 + 32 = 90°$

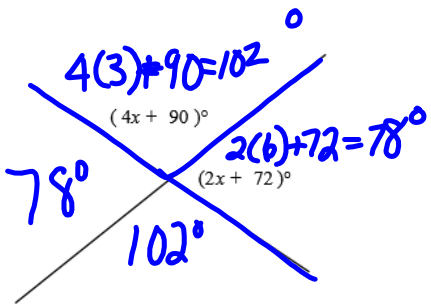
$9x + 36 = 90°$

$-36 \quad -36$

$\frac{9x}{9} = \frac{54}{9}$

$x = 6$

11. Solve for x and find the value of the angles.



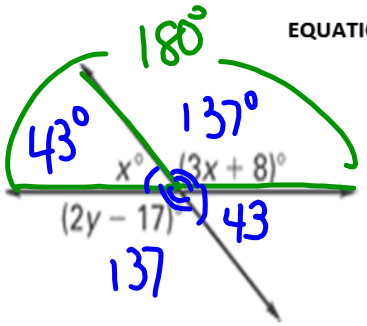
EQUATION: $180 = 4x + 90 + 2x + 72$

$180 = 6x + 162$

$-162 \quad -162$

$\frac{18}{6} = \frac{6x}{6}$ $x = 3$

12. Solve for *x* and *y* and find the measure of all the angles.



EQUATION: $180 = x+3x+8$; EQUATION: $137 = 2y-17$

$180 = 4x+8$

$-8 \quad -8$

$\frac{172}{4} = \frac{4x}{4}$

$43^\circ = x$

$+17 \quad +17$

$\frac{154}{2} = \frac{2y}{2}$

$77^\circ = y$

13. The measure of two complementary angles are in the ratio of 2:4. What is the measure of the larger angle?

$m\angle 1 + m\angle 2 = 90^\circ$

$2x + 4x = 90^\circ$

$\frac{6x}{6} = \frac{90^\circ}{6}$

$x = 15^\circ$

$\angle 1 = 2x = 2(15) = 30^\circ$

$\angle 2 = 4x = 4(15) = 60^\circ$

90°