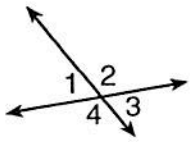
Name: _____ Date:_____

Mrs. Roumbos 8r Period_____

Extra Geometry Review

1) What are a pair of vertical angles in the diagram below?

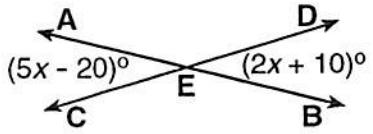


A) 3 and 4
B) 2 and 3
C) 2 and 4
D) 1 and 2

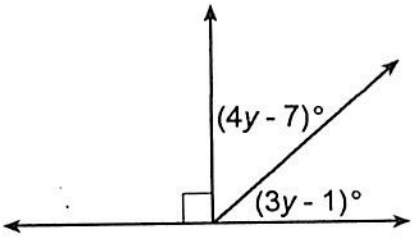
2) Which one of the following pairs of angles x and y are supplementary?

A) $m\angle x = 76°, m\angle y = 14°$
B) $m\angle x = 180°, m\angle y = 180°$
C) $m\angle x = 113°, m\angle y = 67°$
D) $m\angle x = 140°, m\angle y = 190°$

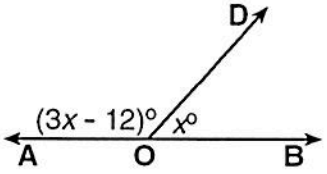
3) In the accompanying diagram, $\overleftrightarrow{AB}$ and $\overleftrightarrow{CD}$ intersect at E, $m\angle AEC = (5x - 20)°$, and $m\angle DEB = (2x + 10)°$. Find the value of x.



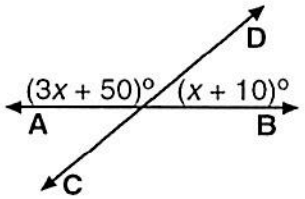
4) Solve for y in the diagram below.



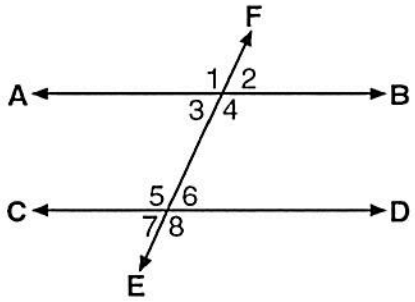
5) In the accompanying diagram, $\overleftrightarrow{AOB}$ is a straight line, $m\angle AOD = (3x - 12)°$, and $m\angle BOD = x°$. What is the value of x?



6) In the accompanying diagram, the adjacent angles formed by intersecting lines $\overleftrightarrow{AB}$ and $\overleftrightarrow{CD}$ have measures $(3x + 50)°$ and $(x + 10)°$, respectively. Find x.



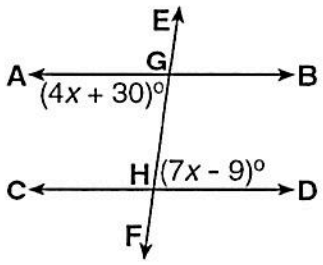
7) In the accompanying diagram, $\overleftrightarrow{AB} \parallel \overleftrightarrow{CD}$, $\overleftrightarrow{EF}$ is transversal, and $m\angle 1 = 110°$.



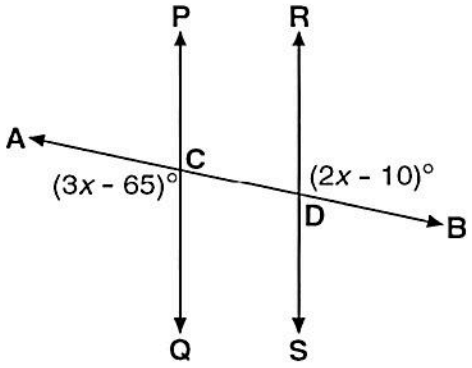
What is $m\angle 7$?

A) 70° C) 50°
B) 110° D) 20°

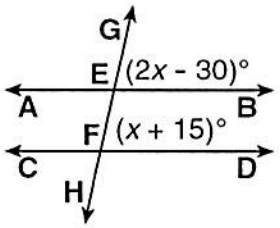
8) In the accompanying diagram, parallel lines $\overleftrightarrow{AB}$ and $\overleftrightarrow{CD}$ are intersected by transversal $\overleftrightarrow{EF}$ at G and H, respectively. If $m\angle AGH = (4x + 30)°$ and $m\angle GHD = (7x - 9)°$, what is the value of x?



9) In the accompanying diagram, $\overleftrightarrow{AB}$ intersects $\overleftrightarrow{PQ}$ and $\overleftrightarrow{RS}$ at C and D, respectively. If $\overleftrightarrow{PQ} \parallel \overleftrightarrow{RS}$, $m\angle RDB = (2x - 10)°$, and $m\angle QCA = (3x - 65)°$, find x.



10) In the accompanying diagram, parallel lines $\overleftrightarrow{AB}$ and $\overleftrightarrow{CD}$ are cut by transversal $\overleftrightarrow{GH}$ at E and F, respectively. If $m\angle GEB = (2x - 30)°$ and $m\angle EFD = (x + 15)°$, find the value of x.



11) Find the supplement of a 120° angle

12) Find the complement of a 40° angle

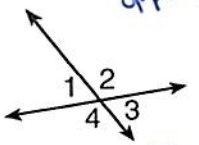
acute = acute
obtuse = obtuse
acute + acute + obtuse = 180°

Name: Key Date:_____
Mrs. Roumbos 8r Period_____

Extra Geometry Review

1) What are a pair of vertical angles in the diagram below?

opposite

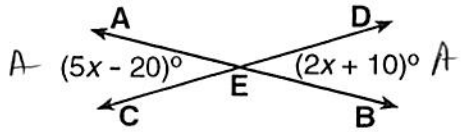


A) 3 and 4
B) 2 and 3
C) 2 and 4
D) 1 and 2

2) Which one of the following pairs of angles x and y are supplementary?

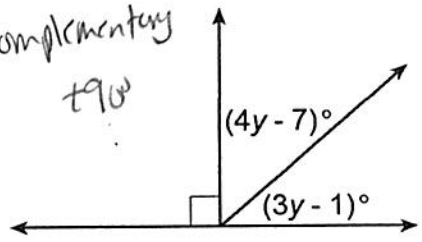
A) $m\angle x = 76°, m\angle y = 14°$
B) $m\angle x = 180°, m\angle y = 180°$
C) $m\angle x = 113°, m\angle y = 67°$
D) $m\angle x = 140°, m\angle y = 190°$

3) In the accompanying diagram, $\overline{AB}$ and $\overline{CD}$ intersect at E, $m\angle AEC = (5x - 20)°$, and $m\angle DEB = (2x + 10)°$. Find the value of x.



$5x - 20 = 2x + 10$
$-2x \quad -2x$
$3x - 20 = 10$
$+20 \quad +20$
$\frac{3x}{3} = \frac{30}{3}$
$x = 10$

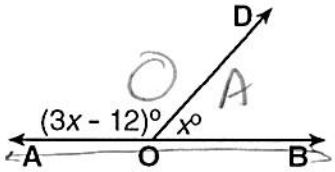
4) Solve for y in the diagram below.



Complementary
+90

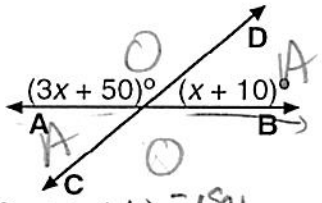
$4y - 7 + 3y - 1 = 90$
$7y - 8 = 90$
$+8 \quad +8$
$\frac{7y}{7} = \frac{98}{7}$
$y = 14$

5) In the accompanying diagram, $\overrightarrow{AOB}$ is a straight line, $m\angle AOD = (3x - 12)°$, and $m\angle BOD = x°$. What is the value of x?



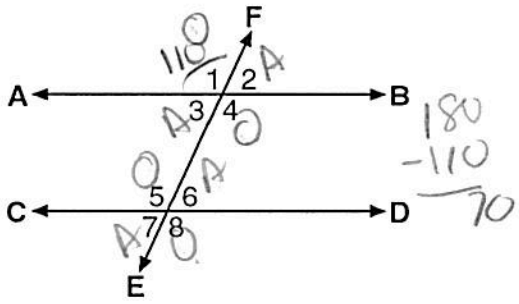
$3x - 12 + x = 180$
$4x - 12 = 180$
$+12 \quad +12$
$\frac{4x}{4} = \frac{192}{4}$
$x = 48$

6) In the accompanying diagram, the adjacent angles formed by intersecting lines $\overrightarrow{AB}$ and $\overrightarrow{CD}$ have measures $(3x + 50)°$ and $(x + 10)°$, respectively. Find x.



$3x + 50 + x + 10 = 180$
$4x + 60 = 180$
$-60 \quad -60$
$\frac{4x}{4} = \frac{120}{4}$
$x = 30$

7) In the accompanying diagram, $\overleftrightarrow{AB} \parallel \overleftrightarrow{CD}$, $\overleftrightarrow{EF}$ is transversal, and $m\angle 1 = 110°$.

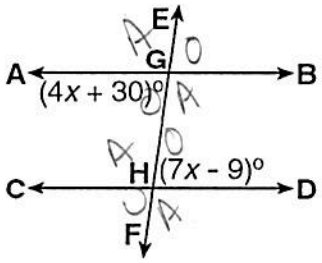


180 − 110 = 70

What is $m\angle 7$?

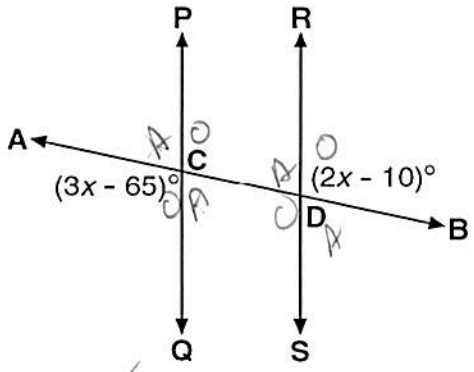
A) 70°
B) 110°
C) 50°
D) 20°

8) In the accompanying diagram, parallel lines $\overleftrightarrow{AB}$ and $\overleftrightarrow{CD}$ are intersected by transversal $\overleftrightarrow{EF}$ at G and H, respectively. If $m\angle AGH = (4x + 30)°$ and $m\angle GHD = (7x - 9)°$, what is the value of x?



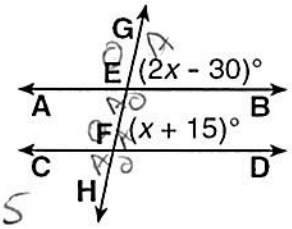
$4x + 30 = 7x - 9$
$-4x \quad -4x$
$30 = 3x - 9$
$+9 \quad +9$
$\frac{39}{3} = \frac{3x}{3}$
$13 = x$

9) In the accompanying diagram, $\overleftrightarrow{AB}$ intersects $\overleftrightarrow{PQ}$ and $\overleftrightarrow{RS}$ at C and D, respectively. If $\overleftrightarrow{PQ} \parallel \overleftrightarrow{RS}$, $m\angle RDB = (2x - 10)°$, and $m\angle QCA = (3x - 65)°$, find x.



$3x - 65 = 2x - 10$
$-2x \quad -2x$
$x - 65 = -10$
$+65 \quad +65$
$x = 55$

10) In the accompanying diagram, parallel lines $\overleftrightarrow{AB}$ and $\overleftrightarrow{CD}$ are cut by transversal $\overleftrightarrow{GH}$ at E and F, respectively. If $m\angle GEB = (2x - 30)°$ and $m\angle EFD = (x + 15)°$, find the value of x.



$2x - 30 = x + 15$
$-x \quad -x$
$x - 30 = 15$
$+30 \quad +30$
$x = 45$

11) Find the supplement of a 120° angle
$180 - 120 = 60°$

12) Find the complement of a 40° angle
$90 - 40 = 50°$