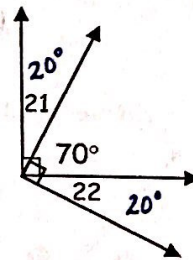
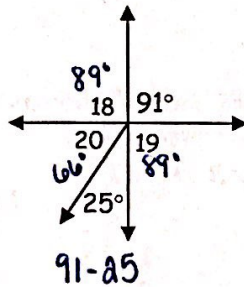
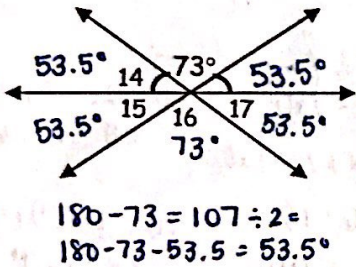
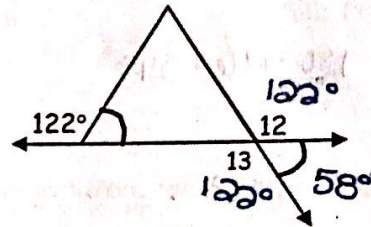
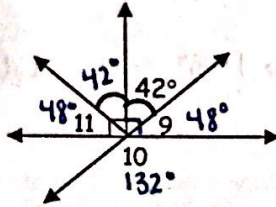
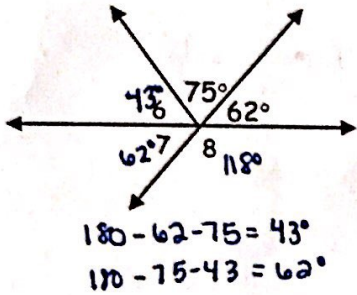
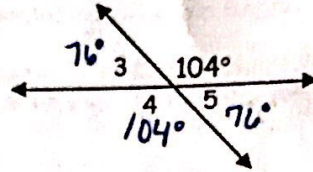
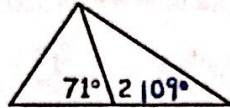
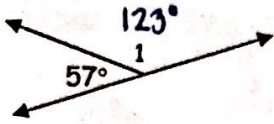


Day 2 - Complementary and Supplementary Angles Practice

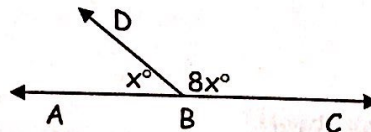
Find the measures of angles 1 through 22. Mark them in your diagram.



23) Find $m\angle DBC$.

$x + 8x = 180$
 $9x = 180$
 $x = 20$

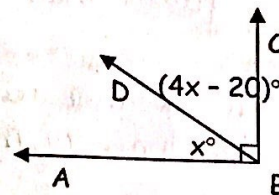
$\angle DBC = 8(20)$
 $= 160^\circ$



24) Find $m\angle DBC$.

$x + 4x - 20 = 90$
 $5x - 20 = 90$
 $5x = 110$
 $x = 22$

$\angle DBC = 4(22) - 20$
 $= 68^\circ$



25) $\angle 1$ and $\angle 2$ are complementary. $m\angle 1 = 2x + 7$ and $m\angle 2 = 4x - 19$. Find the measure of each angle.

$$2x + 7 + 4x - 19 = 90$$

$$6x - 12 = 90$$

$$6x = 102$$

$$x = 17$$

$$m\angle 1 = 2(17) + 7$$

$$= 41^\circ$$

$$m\angle 2 = 4(17) - 19$$

$$= 49^\circ$$

Check:
 $41 + 49 = 90^\circ$

26) $\angle 3$ and $\angle 4$ are supplementary. $m\angle 3 = 5x + 22$ and $m\angle 4 = 7x + 2$. Find the measure of each angle.

$$5x + 22 + 7x + 2 = 180$$

$$12x + 24 = 180$$

$$12x = 156$$

$$x = 13$$

$$m\angle 3 = 5(13) + 22$$

$$= 87^\circ$$

$$m\angle 4 = 7(13) + 2$$

$$= 93^\circ$$

Check:
 $87 + 93 = 180^\circ$

27) Use the diagram on the right to name:

a) two complementary angles

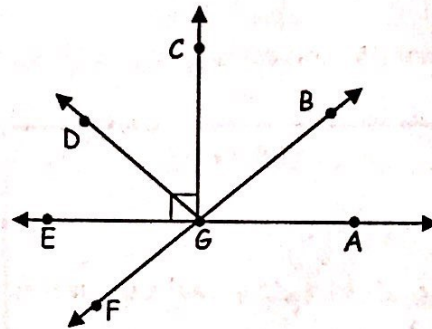
$\angle CGD$ & $\angle DGE$

b) two supplementary angles

$\angle EGF$ & $\angle EGB$

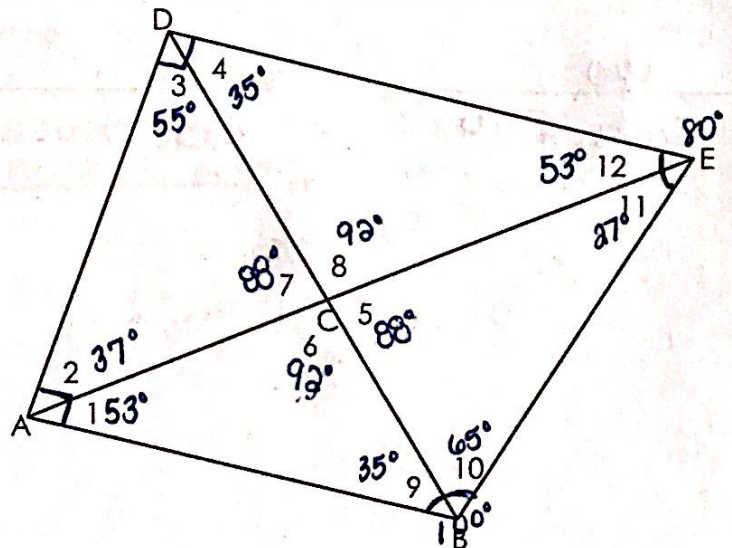
$\angle FGD$ & $\angle DGB$

$\angle DGE$ & $\angle DGA$



28) Find the measure of each angle in the diagram if you know the following:

- a. $\angle DAB$ is a right angle
- b. $\angle ADE$ is a right angle
- c. $\angle 1 = 53^\circ$
- d. $m\angle 1 = m\angle 12$
- e. $\angle 3 = 55^\circ$
- f. $\angle 5 = 88^\circ$
- g. $m\angle 4 = m\angle 9$
- h. $\angle ABE = 100^\circ$
- i. $\angle DEB = 80^\circ$



- $\angle 1 = 53^\circ$
- $\angle 2 = 37^\circ$
- $\angle 3 = 55^\circ$
- $\angle 4 = 35^\circ$
- $\angle 5 = 88^\circ$
- $\angle 6 = 92^\circ$
- $\angle 7 = 88^\circ$
- $\angle 8 = 92^\circ$
- $\angle 9 = 35^\circ$
- $\angle 10 = 65^\circ$
- $\angle 11 = 87^\circ$
- $\angle 12 = 53^\circ$