

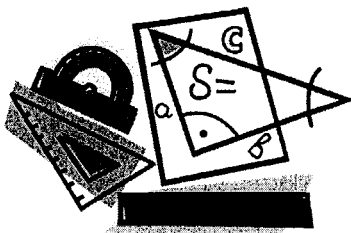
Name _____

Math 8

Date _____ Period _____

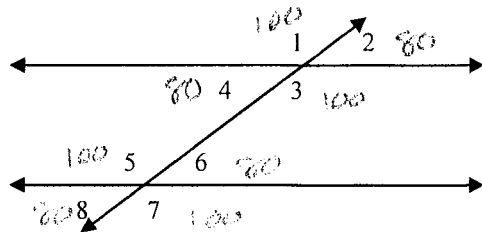
Geometry Quiz #2 Review

Word Bank: Vertical, Corresponding, Alternate Interior, Alternate Exterior, Complementary, Supplementary



Write the name of each set of angles.

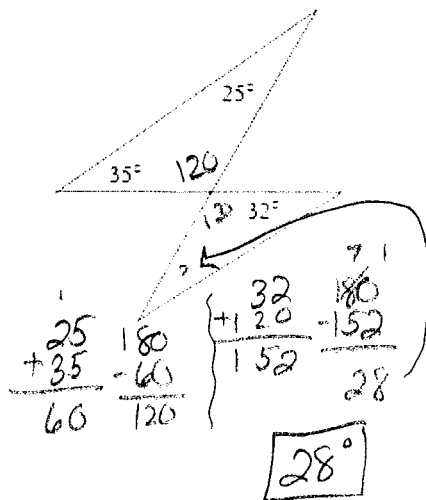
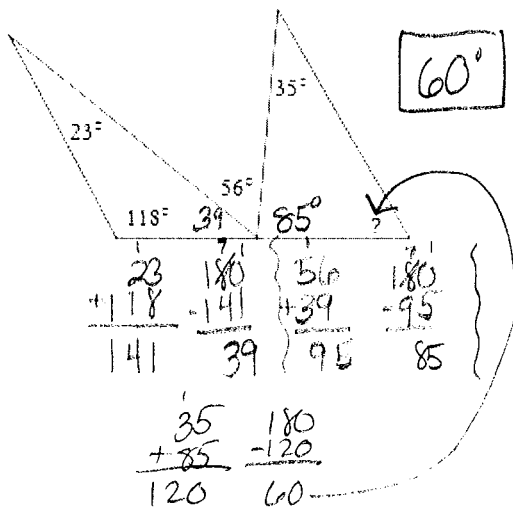
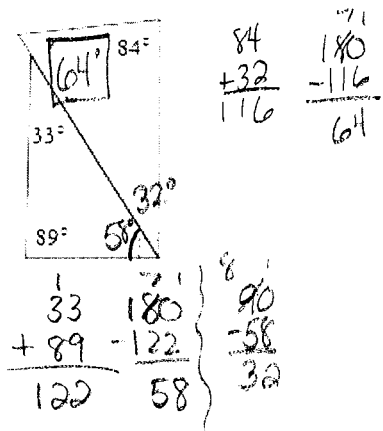
- 1) $\angle 5$ and $\angle 6$ Supplementary
- 2) $\angle 1$ and $\angle 5$ corresponding
- 3) $\angle 3$ and $\angle 5$ alternate interior
- 4) $\angle 2$ and $\angle 8$ alternate exterior
- 5) $\angle 8$ and $\angle 6$ vertical



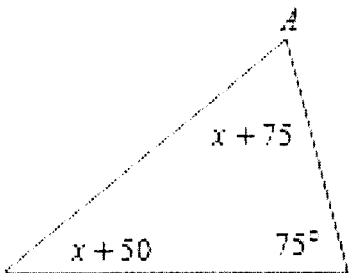
6) Find $m\angle 4$ if $m\angle 1 = 100^\circ$ 80°

7) Find $m\angle 6$ if $m\angle 1 = 100^\circ$ 80°

8) Find the missing angle in each image below.



9) Calculate the value of angle A.



$$x + 75 + x + 50 + 75 = 180$$

$$2x + 200 = 180$$

$$\quad -200 \quad -200$$

$$\frac{2x}{2} = \frac{-20}{2}$$

$$x = -10$$

$$m\angle A = 65^\circ$$

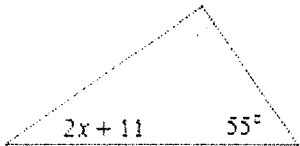
$$m\angle A = x + 75$$

$$m\angle A = -10 + 75$$

$$m\angle A = 65^\circ$$

Find the value of x in each of the following.

10)



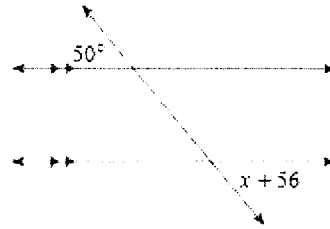
$$90 + 55 + 2x + 11 = 180$$

$$\begin{array}{r} 2x + 156 = 180 \\ -156 \quad -156 \\ \hline \end{array}$$

$$\frac{2x}{2} = \frac{24}{2}$$

$$\boxed{x = 12}$$

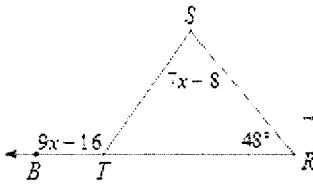
11)



$$\begin{array}{r} 50 = x + 56 \\ -56 \quad -56 \\ \hline -6 = x \end{array}$$

$$\boxed{x = -6}$$

12)



$$9x - 16 = x - 8 + 48$$

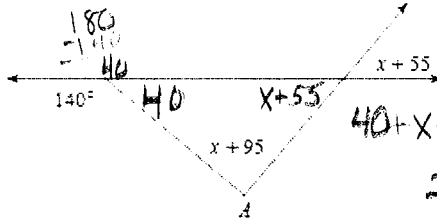
$$\begin{array}{r} 9x - 16 = 7x + 40 \\ -7x \quad -7x \\ \hline \end{array}$$

$$\begin{array}{r} 2x - 16 = 40 \\ +16 \quad +16 \\ \hline \end{array}$$

$$\frac{2x}{2} = \frac{56}{2}$$

$$\boxed{x = 28}$$

13)



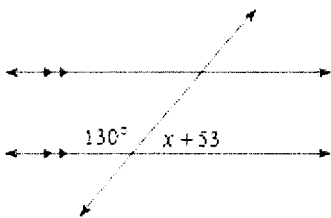
$$40 + x + 55 + x + 95 = 180$$

$$\begin{array}{r} 2x + 190 = 180 \\ -190 \quad -190 \\ \hline \end{array}$$

$$\frac{2x}{2} = \frac{-10}{2}$$

$$\boxed{x = -5}$$

14)



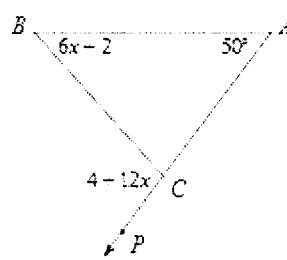
$$130 + x + 53 = 180$$

$$x + 183 = 180$$

$$\begin{array}{r} -183 \quad -183 \\ \hline \end{array}$$

$$\boxed{x = -3}$$

15)



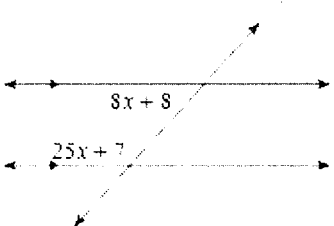
$$\begin{array}{r} 4 + 12x = 50 + 6x \\ -6x \quad -6x \\ \hline \end{array}$$

$$\begin{array}{r} 4 + 6x = 50 \\ -4 \quad -4 \\ \hline \end{array}$$

$$\frac{6x}{6} = \frac{46}{6}$$

$$\boxed{x = 1}$$

16)



$$8x + 8 + 25x + 7 = 180$$

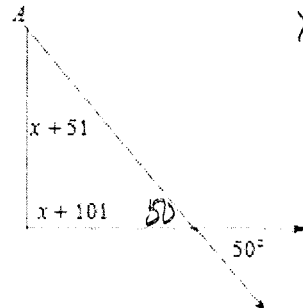
$$33x + 15 = 180$$

$$\begin{array}{r} -15 \quad -15 \\ \hline \end{array}$$

$$\frac{33x}{33} = \frac{165}{33}$$

$$\boxed{x = 5}$$

17)



$$x + 51 + x + 101 + 50 = 180$$

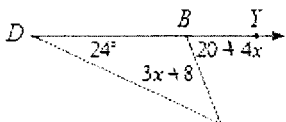
$$2x + 202 = 180$$

$$\begin{array}{r} -202 \quad -202 \\ \hline \end{array}$$

$$\frac{2x}{2} = \frac{-22}{2}$$

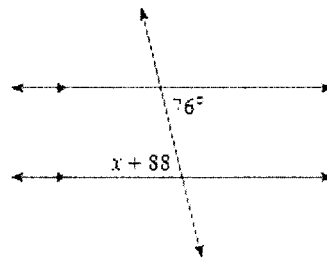
$$\boxed{x = -11}$$

18)



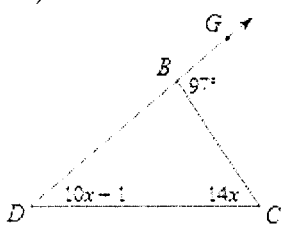
$$\begin{aligned}
 24 + 3x + 8 &= 20 + 4x \\
 3x + 32 &= 20 + 4x \\
 -3x &\quad -3x \\
 \hline
 32 &= 20 + x \\
 -20 &\quad -20 \\
 \hline
 12 &= x
 \end{aligned}$$

19)



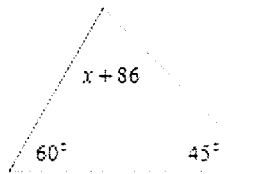
$$\begin{aligned}
 76 &= x + 88 \\
 -88 &\quad -88 \\
 \hline
 -12 &= x
 \end{aligned}$$

20)



$$\begin{aligned}
 97 &= 10x + 1 + 14x \\
 97 &= 24x + 1 \\
 -1 &\quad -1 \\
 \hline
 96 &= 24x \\
 24 &\quad 24 \\
 \hline
 4 &= x
 \end{aligned}$$

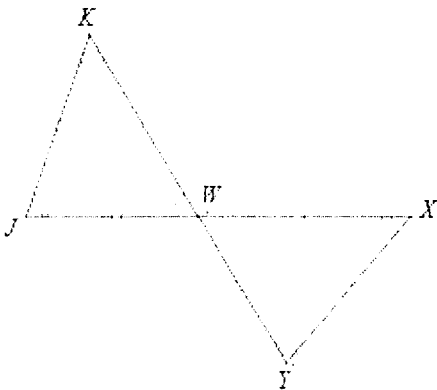
21)



$$\begin{aligned}
 x + 86 + 60 + 45 &= 180 \\
 x + 191 &= 180 \\
 -191 &\quad -191 \\
 \hline
 x &= -11
 \end{aligned}$$

22) Complete the statement for each of the following.

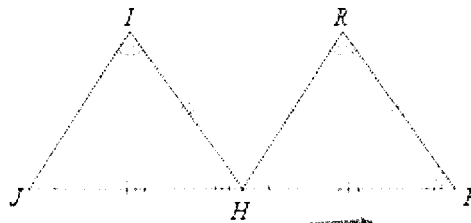
$\triangle WXY \cong \triangle WKJ$



$\overline{YW} \cong ?$

$$\overline{KW}$$

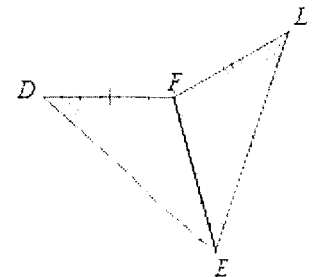
$\triangle JIH \cong \triangle HRP$



$\angle IHJ \cong ?$

$$\angle RPH$$

$\triangle FED \cong \triangle FEL$



$\angle FED \cong ?$

$$\angle FEL$$