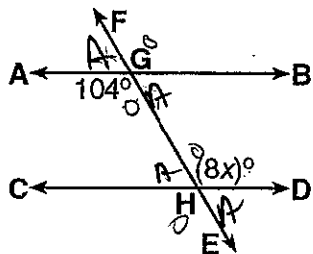


Name: Kly
Mrs. Roubos

Date: _____
8R Period _____

Homework

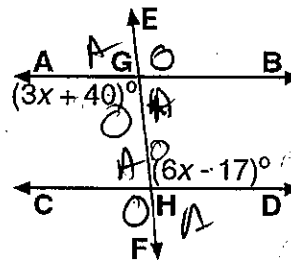
- 1) In the accompanying diagram, \overline{AB} is parallel to \overline{CD} , and \overline{EF} intersects \overline{AB} at G and \overline{CD} at H . If $m\angle AGE = 104^\circ$ and $m\angle DHG = 8x^\circ$, what is the value of x ?



$$\frac{104}{8} = \frac{8x}{8}$$

$$x = 13$$

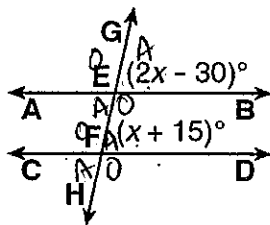
- 3) In the accompanying diagram, transversal \overline{EF} intersects parallel lines \overline{AB} and \overline{CD} at G and H , respectively. If $m\angle AGH = (3x + 40)^\circ$ and $m\angle GHD = (6x - 17)^\circ$, what is the value of x ?



$$\begin{aligned} 3x + 40 &= 6x - 17 \\ -3x &\quad -3x \\ \hline 40 &= 3x - 17 \\ +17 &\quad +17 \\ \hline 57 &= 3x \\ \frac{57}{3} &= \frac{3x}{3} \end{aligned}$$

$$x = 19$$

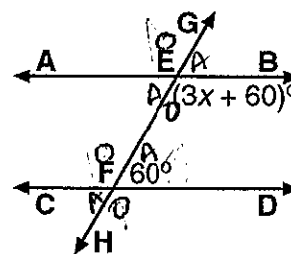
- 4) In the accompanying diagram, parallel lines \overline{AB} and \overline{CD} are cut by transversal \overline{GH} at E and F , respectively. If $m\angle GEB = (2x - 30)^\circ$ and $m\angle EFD = (x + 15)^\circ$, find the value of x .



$$\begin{aligned} 2x - 30 &= x + 15 \\ -x &\quad -x \\ \hline x - 30 &= 15 \end{aligned}$$

$$\begin{aligned} x - 30 &= 15 \\ +30 &\quad +30 \\ \hline x &= 45 \end{aligned}$$

$$x = 45$$



$$3x + 60 + 60 = 180$$

$$\begin{aligned} 3x + 120 &= 180 \\ -120 &\quad -120 \\ \hline 3x &= 60 \end{aligned}$$

$$\frac{3x}{3} = \frac{60}{3}$$

$$x = 20$$