

# PETUNIA'S PICKLE PROBLEM NOTES

Ex:  $3.2x - 5.8x + 6 - 10.1 + x = -4.6 + 0.4x + 9 + 3x$

$$-2.6x - 4.1 + 1x = 3.4x + 4.4$$

$$-1.6x - 4.1 = 3.4x + 4.4$$

$$\begin{array}{r} +1.6x \\ \hline -4.1 = 5x + 4.4 \\ -4.4 \quad -4.4 \\ \hline -8.5 = 5x \\ \frac{-8.5}{5} = \frac{5x}{5} \\ -1.7 = x \end{array}$$

$$-4.1 = 5x + 4.4$$

$$-4.4 \quad -4.4$$

$$\frac{-8.5}{5} = \frac{5x}{5}$$

$$-1.7 = x$$

$$\boxed{x = -1.7}$$

Ex:  $\frac{1}{5}x + 13 + x = -9x + 23$

$$\frac{1}{5}x + 13 = -9x + 23$$

$$\begin{array}{r} +9x \\ \hline 10\frac{1}{5}x + 13 = 23 \\ -13 \quad -13 \\ \hline 10\frac{1}{5}x = 10 \\ \frac{10\frac{1}{5}x}{10\frac{1}{5}} = \frac{10}{10\frac{1}{5}} \\ x = \frac{50}{51} \end{array}$$

$$10\frac{1}{5}x + 13 = 23$$

$$-13 \quad -13$$

$$10\frac{1}{5}x = 10$$

$$\frac{10\frac{1}{5}x}{10\frac{1}{5}} = \frac{10}{10\frac{1}{5}}$$

$$\boxed{x = \frac{50}{51}}$$

$$\frac{10}{10\frac{1}{5}} \leftarrow \div$$

$$10 \div 10\frac{1}{5}$$

$$\frac{10}{1} \div \frac{51}{5}$$

$$\frac{10}{1} \times \frac{5}{51}$$

$$\frac{50}{51}$$

Ex: QS is 60 units in length. Find QR.



$$5x + 4 + 16 + 3x = 60$$

$$8x + 20 = 60$$

$$\begin{array}{r} -20 \quad -20 \\ \hline 8x = 40 \\ \frac{8x}{8} = \frac{40}{8} \\ x = 5 \end{array}$$

$$QR = 5x + 4$$

$$= 5(5) + 4$$

$$= 25 + 4$$

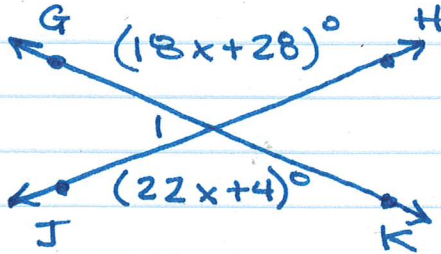
$$\boxed{QR = 29}$$

$$\frac{8x}{8} = \frac{40}{8}$$

$$x = 5$$

Ex:

$\angle GIH$  &  $\angle JIK$  ARE VERTICAL ANGLES.  
WHAT IS THE MEASURE OF EACH ANGLE?



$$\begin{aligned}\angle GIH &= 18x+28 \\ &= 18(6)+28 \\ &= 108+28\end{aligned}$$

$$\boxed{\angle GIH = 136^\circ}$$

$$\begin{aligned}18x+28 &= 22x+4 \\ -18x &\quad -18x \\ \hline 28 &= 4x+4 \\ -4 &\quad -4 \\ \hline 24 &= 4x \\ 4 &\quad 4 \\ \hline 6 &= x \\ x &= 6\end{aligned}$$