



Homework Word Problems:

Consecutive Integers
Numbers
Perimeter

Name: _____
Alg. 1 H – Sept. 26 Glue on the top half of page 28
Use pages 28-30 to show your work.

1.) $(x+3)+1 = x+4$
choice C

*3.) let
1st CI = $x = -8$
2nd CI = $x+1 = -7$
answer

2.) let smaller # = $x = 19$
larger # = $2x = 38$

equation:
 $(x+1) = 2x+9$
 $-x \quad -x$
 $1 = x+9$
 $-9 \quad -9$
 $-8 = x$

equation: $2x-12 = x+7$
 $-x \quad -x$
 $x-12 = 7$
 $+12 \quad +12$
 $x = 19$
 $2(19) = 38$

$-8+1 = -7$

4.) Let $a \# = x = 6$ ^{answer}

Equation:

$$\begin{array}{r} 8x + 9 = 7x + 15 \\ -7x \quad -7x \\ \hline x + 9 = 15 \\ -9 \quad -9 \\ \hline x = 6 \end{array}$$

5.) Let $\text{small} \# = x = 10$ ^{answer}
 $\text{large} \# = x + 10 = 20$

Equation:

$$\begin{array}{r} 5(x+10) = 6x + 40 \\ 5x + 50 = 6x + 40 \\ -5x \quad -5x \\ \hline 50 = x + 40 \\ -40 \quad -40 \\ \hline 10 = x \\ 10 + 10 = 20 \end{array}$$

6.) Let 1st CEI = $x = 10$ ^{ans}
 2nd CEI = $x + 2 = 12$
 3rd CEI = $x + 4 = 14$

Equation: $2x + 3(x+4) = 4(x+2) + 14$

$$\begin{array}{r} 2x + 3x + 12 = 4x + 8 + 14 \\ 5x + 12 = 4x + 22 \\ -4x \quad -4x \\ \hline x + 12 = 22 \\ -12 \quad -12 \\ \hline x = 10 \end{array}$$

$\rightarrow 10 + 2 = 12$
 $12 + 2 = 14$

7.) Let small # = $x - 18 = 10$ answer
 large # = $x = 28$

equation: $5(x) = 4(x - 18) + 100$
 $5x = 4x - 72 + 100$
 $5x = 4x + 28$
 $-4x \quad -4x$
 $x = 28$
 $28 - 18 = 10$

8.) Let answer
 1st # = $x = 7$
 2nd # = $x + 2 = 9$
 3rd # = $(x + 2) + 6 = 15$
 $\quad \quad \quad \underbrace{\quad \quad}_{x+8}$

equation: $x = 4(x + 8) - 53$
 $x = 4x + 32 - 53$
 $x = 4x - 21$
 $-4x \quad -4x$
 $-3x = -21$
 $-3 \quad -3$
 $x = 7$
 $\quad \quad \quad \left. \begin{array}{l} 7 + 2 = 9 \\ 9 + 6 = 15 \end{array} \right\}$

9.) Let 1st bro. = $x = 13$ ans
 2nd bro = $x + 2 = 15$
 3rd bro = $x + 4 = 17$

equation: $(x + 4) - 2(x) = (x + 2) - 24$
 $+x + 4 = x - 22$
 $+x \quad +x$
 $4 = 2x - 22$
 $+22 \quad +22$
 $26 = 2x$
 $\frac{26}{2} = \frac{2x}{2}$
 $x = 13$
 $13 + 2 = 15$
 $15 + 2 = 17$

