

Name: Key

Period: _____ Date: _____

Math I
Quiz Chapter 1 (1.1-1.3) REVIEW

Use the Distributive Property

1) $5(8x + 2)$
 $(5)(8x) + (5)(2)$
 $40x + 10$

2) $-6(3x - 7)$
 $(-6)(3x) - (-6)(7)$
 $-18x + 42$

Simplify

3) $9x^2 + 2 + 3x - 5x^2 + 4$

1. $40x + 10$

2. $-18x + 42$

3. $4x^2 + 3x + 6$

Solve

4) $2x - 5 = 9$
 $+5 +5$
 $2x = 14$
 $\frac{2x}{2} = \frac{14}{2}$ $x = 7$

5) $4x - 16 + 8x = -4$
 $12x - 16 = -4$
 $+16 +16$
 $12x = 12$
 $\frac{12x}{12} = \frac{12}{12}$
 $x = 1$

6) $\frac{1}{5}x - \frac{3}{5} = \frac{4}{5}$
 $+ \frac{3}{5} + \frac{3}{5}$
 $\frac{1}{5}x = \frac{7}{5}$
 $\frac{1}{5}x = \frac{7}{5}$
 $\frac{1}{5}x = \frac{7}{5}$
 $x = 7$

7) $5x + 6 = 4x - 8$
 $-4x -4x$
 $x + 6 = -8$
 $-6 -6$
 $x = -14$

8) $-2x + 9 = 4x - 3$
 $+2x +2x$

$9 = 6x - 3$
 $+3 +3$
 $12 = 6x$
 $\frac{12}{6} = \frac{6x}{6} \rightarrow x = 2$

4. $x = 7$

5. $x = 1$

6. $x = 7$

7. $x = -14$

8. $x = 2$

$$\begin{array}{r}
 9) \quad \overbrace{-3b - 15} = \overbrace{6(2b + 5)} \\
 \quad -3b + 15 = 12b + 30 \\
 \quad +3b \quad \quad +3b \\
 \hline
 \quad 15 = 15b + 30 \\
 \quad -30 \quad \quad -30 \\
 \hline
 \quad -15 = 15b
 \end{array}$$

$$\begin{array}{r}
 -15 = 15b \\
 \hline
 -1 = b
 \end{array}$$

$$9) \quad \underline{b = -1}$$

Write an equation to model the situation then solve the equation

10. Eli took the fleet of 8 vans for oil changes. All of the vans needed windshield wipers which cost \$192. The total bill was \$432. What was the cost of each oil change?

$$(432 - 192) \div 8 = \boxed{\$30} \quad \text{OR} \quad \begin{array}{r} 432 = 192 + 8x \\ -192 \quad -192 \\ \hline 240 = \cancel{8}x \\ \hline 30 = x \end{array}$$

Error Analysis

11. Alice is solving the equation $24 = 4 - 4x$. She says that first she will add 4 to each side, then multiply both sides by -4 . Explain Alice's error.

Adding 4 wouldn't get rid of the 4 on the left. It would make it $28 = 8 - 4x$.

12. Given the problem: $1.23x + 5 = 2.3x - 12$ What would you multiply the problem by to get clear the decimal?