

Name: Key Class: 2013 Date: \_\_\_\_\_

ID: A

September V1 Things to Know Before You Finish Algebra 1(T Cubed)

1 Evaluate  $4^2 + 19 \cdot 38 - (28 + 25 \cdot 2)$ .

$$16 + 722 - 78$$

$$738 - 78$$

$$\boxed{660}$$

2 Simplify  $9(12+2x) + 5(6+6x)$ .

$$\underline{108} + \underline{18x} + \underline{30} + \underline{30x}$$

$$\underline{30x} + \underline{18x} + \underline{108} + \underline{30}$$

$$\boxed{48x + 138}$$

3 Solve  $4x + 1 = x + 6$

$$\begin{array}{r} -x \\ 4x + 1 = x + 6 \\ \hline 3x + 1 = 6 \end{array}$$

$$\begin{array}{r} +1 \\ 3x + 1 = 6 \\ \hline 3x = 5 \end{array}$$

$$\begin{array}{r} -1 \\ 3x = 5 \\ \hline x = \frac{5}{3} \end{array}$$

$$\boxed{x = \frac{5}{3} \text{ or } \frac{2}{3} \text{ or } 1.\bar{6}}$$

4 Solve the proportion.

$$\frac{x+3}{2} = \frac{6x}{24}$$

$$24(x+3) = 2(6x)$$

$$24x + 72 = 12x$$

$$\begin{array}{r} -24x \\ 24x + 72 = 12x \\ \hline 72 = -12x \end{array}$$

$$\begin{array}{r} -12 \\ 72 = -12x \\ \hline -6 = x \end{array}$$

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