

Name _____
Mrs. Roubos

Date _____
8R Period _____

Algebra II Quiz Extra Review

I. Solve the following

1) $\frac{x-5}{-6} = 10$

2) $\frac{y+3}{2} = 4.6$

3) $\frac{c-4}{3} = -15$

4) $\frac{1}{3}x - \frac{2}{5}x = 15$

5) $\frac{x}{2} - \frac{4x}{5} + \frac{1}{3} = -\frac{5}{9}$

6) $\frac{4}{5}x - \frac{2}{3} = \frac{10}{4}$

$$7) \sqrt{400}$$

$$8) \sqrt[3]{8}$$

$$9) x^2 = \frac{64}{81}$$

$$10) x^3 = 343$$

II. Solve and interpret the results. (one, none, or infinite amount)

$$11) -3x + 4(x - 2) = -(x + 2)$$

$$12) 6x + 3 = 3(2x + 1)$$

$$13) 5x + 3 = 5x - 1$$

Algebra II Quiz Extra Review

I. Solve the following

1) ~~$\frac{x-5}{-6} = (10) - 6$~~

$$\begin{array}{r} x-5 = -60 \\ +5 \quad +5 \\ \hline x = -55 \end{array}$$

2) ~~$\frac{y+3}{2} = (4.6) 2$~~

$$\begin{array}{r} y+3 = 9.2 \\ -3 \quad -3 \\ \hline y = 6.2 \end{array}$$

3) ~~$\frac{c-4}{3} = (15) 3$~~

$$\begin{array}{r} c-4 = -45 \\ +4 \quad +4 \\ \hline c = -41 \end{array}$$

4) $\frac{1}{3}x - \frac{2}{5}x = 15$

$$\left(\frac{-15}{1}\right) \left(-\frac{1}{15}x\right) = (15) \left(\frac{-15}{1}\right)$$

$$x = -225$$

5) $\frac{x}{2} - \frac{4x}{5} + \frac{1}{3} = -\frac{5}{9}$

$$\frac{1}{2}x - \frac{4}{5}x + \frac{1}{3} = -\frac{5}{9}$$

$$\begin{array}{r} -\frac{3}{10}x + \frac{1}{3} = -\frac{5}{9} \\ -\frac{1}{3} \quad -\frac{1}{3} \\ \hline \left(\frac{-10}{3}\right) \left(-\frac{3}{10}x\right) = \left(\frac{-8}{9}\right) \left(\frac{-10}{3}\right) \\ x = 2\frac{26}{27} \end{array}$$

6) $\frac{4}{5}x - \frac{2}{3} = \frac{10}{4}$

$$\begin{array}{r} \frac{4}{5}x - \frac{2}{3} = \frac{10}{4} \\ +\frac{2}{3} \quad +\frac{2}{3} \\ \hline \left(\frac{5}{4}\right) \left(\frac{4}{5}x\right) = \left(3\frac{1}{6}\right) \left(\frac{5}{1}\right) \\ x = 3\frac{23}{24} \end{array}$$

7) $\sqrt{400} =$

$\boxed{20}$

8) $\sqrt[3]{8} =$

$\boxed{2}$

9) $\sqrt{x^2} = \sqrt{\frac{64}{81}}$

$\boxed{x = \frac{8}{9}}$

10) $\sqrt[3]{x^3} = \sqrt[3]{343}$

$\boxed{x = 7}$

Calc:
2nd x^2 (400)

Calc:
3 $\sqrt{2^{nd}}$ (1) (8)

II. Solve and interpret the results. (one, none, or infinite amount)

11) $-3x + 4(x - 2) = -(x + 2)$

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

$x - 8 = -x - 2$

$+x \quad +x$

$2x - 8 = -2$

$+8 \quad +8$

$\frac{2x}{2} = \frac{6}{2}$

$\boxed{x = 3}$

One solution

12) $6x + 3 = 3(2x + 1)$

$6x + 3 = 6x + 3$

$-6x \quad -6x$

$\boxed{3 = 3} \checkmark$

Infinite many

13) $5x + 3 = 5x - 1$

$-5x \quad -5x$

$\boxed{3 \neq -1}$

Zero or NO solutions