

CP Algebra 2
Quiz #1
January 31, 2012

Name: _____

While you may use your calculator, you **MUST Show ALL Work for Full Credit!**

In Problems 1 - 2, convert the decimal to a simplified fraction (improper fraction, if applicable).

1.) 0.45 [3 Points]

2.) $1.827272727\overline{27}$ [4 Points]

In Problems 3 - 4, evaluate the expression.

[6 Points Each]

Write the answer as a simplified improper fraction, if applicable.

SHOW EACH STEP IN THE CORRECT ORDER!

3.) $\left[2 + \left(\frac{1}{2} \right)^2 \right]^{-2} - 4$

4.) $\left[\frac{(3-5)^2 \cdot 12 \div 6 - 2 \cdot 5}{18 \div 9 - 3 \cdot 4} \right]^2$

5.) Simplify completely: $64^{1/3}$

[3 Points]

In Problems 6 – 11. solve the equation for all applicable answers.
Write answers in simplified form.

[6 Points Each]

6.) $\frac{2}{5}x - \frac{7}{4} = \frac{3}{10} - x$

7.) $\left(\frac{2}{3}\right)\left(\frac{7}{2}x - 6\right) - \frac{8}{3} = 2x - \frac{7}{6}$

8.) $5\sqrt{24}x - 7 = 5 - \sqrt{54}x$

9.) $3x - 5\sqrt{12} = -\frac{x}{2} + \sqrt{27}$

10.) $2|x-4|+5x=11x-8$

11.) $\left|\frac{\sqrt{8}}{3}x-10\right|=\left|\frac{\sqrt{18}}{2}x-1\right|$

12.) $\sqrt{x+7}-\sqrt{x+1}=2$

[12 Points]

BONUS Solve for x . Leave your answer in exact form (no decimals).

[3 Points]

$$\sqrt{2x-1}+x=1$$