

Name: _____

Review Problems

Solve for x in each problem. You must show your work for every problem; you should write enough that a classmate could understand how to solve the problem by looking at your solutions. Some problems have “clean” solutions, others do not. Do NOT use decimals, fractions are more precise for these purposes. (If you need more space you may wish to attach another piece of paper).

1) $x^2 - 64 = 0$

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

3) $\frac{x^2 - 4}{x^3 - 9x + 1} = 0$

4) $x^2 + 4x + 3 = 0$

5) $5x^2 - 10x + 5 = 0$

6) $2x^2 + x - 9 = 0$

7) $\sqrt{x} = 6$

8) $x^3 + 2x^2 + x = 0$

$$9) (x - 1)^2 = (2x - 3)^2$$

$$10) x^{\frac{1}{n}} - 1 = k$$

$$11) \frac{1}{x-1} + \frac{1}{1-\frac{1}{x}} = d$$

$$12) x + \sqrt{x} = 3$$

$$13) 2x^4 - 8x^2 = -6$$

$$14) x^{-2} + (2 - x)^{-2} = 0$$

$$15) 1 - x^{\frac{4}{5}} = q$$

$$16) (2 - x^{-1})^2 - 3 = 0$$