

Unit 5.5 Solving Radical Equations EXAMPLES

Period _____

Solve each equation. Remember to check for extraneous solutions.

1) $\sqrt{r} = 2$

2) $\sqrt{n-2} = 10$

3) $0 = \sqrt{-8-a}$

4) $9 = \sqrt{n-9}$

5) $-3 = \sqrt{x} - 10$

6) $-3 = -3\sqrt{m-6}$

7) $\sqrt{x+2} = 2$

8) $-4 + \sqrt{x} = 3$

9) $11 = \sqrt{1-99a} + 1$

10) $-7 + \sqrt{2b+6} = -5$

$$11) 10 = 2 + \sqrt{14 - 5r}$$

$$12) 8 = \sqrt{15m - 5} - 2$$

$$13) -10\sqrt{\frac{v}{2}} = 0$$

$$14) -6 = -8 + \sqrt{\frac{a}{7}}$$

$$15) \sqrt{m + 4} = \sqrt{1 - 2m}$$

$$16) \sqrt{16 - x} = \sqrt{x}$$

$$17) \sqrt{\frac{m}{6}} = \sqrt{3m - 102}$$

$$18) \sqrt{3n - 8} = \sqrt{\frac{n}{3}}$$

$$19) \sqrt{3x - 8} = \sqrt{8 - x}$$

$$20) \sqrt{x + 1} = \sqrt{2x - 3}$$

$$21) \sqrt{2x - 57} = \sqrt{\frac{x}{10}}$$

$$22) \sqrt{\frac{n}{9}} = \sqrt{114 - 2n}$$

Unit 5.5 Solving Radical Equations EXAMPLES

Solve each equation. Remember to check for extraneous solutions.

1) $\sqrt{r} = 2$

 $\{4\}$

2) $\sqrt{n-2} = 10$

 $\{102\}$

3) $0 = \sqrt{-8-a}$

 $\{-8\}$

4) $9 = \sqrt{n-9}$

 $\{90\}$

5) $-3 = \sqrt{x} - 10$

 $\{49\}$

6) $-3 = -3\sqrt{m-6}$

 $\{7\}$

7) $\sqrt{x+2} = 2$

 $\{2\}$

8) $-4 + \sqrt{x} = 3$

 $\{49\}$

9) $11 = \sqrt{1-99a} + 1$

 $\{-1\}$

10) $-7 + \sqrt{2b+6} = -5$

 $\{-1\}$

$$11) 10 = 2 + \sqrt{14 - 5r}$$
$$\{-10\}$$

$$12) 8 = \sqrt{15m - 5} - 2$$
$$\{7\}$$

$$13) -10\sqrt{\frac{v}{2}} = 0$$
$$\{0\}$$

$$14) -6 = -8 + \sqrt{\frac{a}{7}}$$
$$\{28\}$$

$$15) \sqrt{m + 4} = \sqrt{1 - 2m}$$
$$\{-1\}$$

$$16) \sqrt{16 - x} = \sqrt{x}$$
$$\{8\}$$

$$17) \sqrt{\frac{m}{6}} = \sqrt{3m - 102}$$
$$\{36\}$$

$$18) \sqrt{3n - 8} = \sqrt{\frac{n}{3}}$$
$$\{3\}$$

$$19) \sqrt{3x - 8} = \sqrt{8 - x}$$
$$\{4\}$$

$$20) \sqrt{x + 1} = \sqrt{2x - 3}$$
$$\{4\}$$

$$21) \sqrt{2x - 57} = \sqrt{\frac{x}{10}}$$
$$\{30\}$$

$$22) \sqrt{\frac{n}{9}} = \sqrt{114 - 2n}$$
$$\{54\}$$