

## Radical Equations - Part 1

Solve each equation. Remember to check for extraneous solutions.

1)  $\sqrt{x} = 10$

2)  $10 = \sqrt{\frac{m}{10}}$

3)  $\sqrt{v-4} = 3$

4)  $6 = \sqrt{v-2}$

5)  $\sqrt{n} = 9$

6)  $5 = \sqrt{x+3}$

7)  $2 = \sqrt{4b}$

8)  $\sqrt{n+9} = 1$

9)  $-8 + \sqrt{5a-5} = -3$

10)  $10\sqrt{9x} = 60$

11)  $1 = \sqrt{x-5}$

12)  $-10\sqrt{v-10} = -60$

$$13) 10 + \sqrt{10m - 1} = 13$$

$$14) -12 = -6\sqrt{b + 4}$$

$$15) \sqrt{v + 3} - 1 = 7$$

$$16) 90 = 9\sqrt{25v}$$

$$17) \sqrt{3n} = \sqrt{4n - 1}$$

$$18) \sqrt{2n - 88} = \sqrt{\frac{n}{6}}$$

$$19) \sqrt{\frac{x}{10}} = \sqrt{3x - 58}$$

$$20) \sqrt{3n + 12} = \sqrt{n + 8}$$

$$21) \sqrt{n} = \sqrt{2n - 6}$$

$$22) \sqrt{11 - x} = \sqrt{x - 7}$$

$$23) \sqrt{72 - x} = \sqrt{\frac{x}{5}}$$

$$24) \sqrt{x + 3} = \sqrt{1 - x}$$

$$25) \sqrt{2k + 40} = \sqrt{-16 - 2k}$$

$$26) \sqrt{x + 8} = \sqrt{3x + 8}$$

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Solve each equation. Remember to check for extraneous solutions.

1)  $\sqrt{x} = 10$

{100}

2)  $10 = \sqrt{\frac{m}{10}}$

{1000}

3)  $\sqrt{v-4} = 3$

{13}

4)  $6 = \sqrt{v-2}$

{38}

5)  $\sqrt{n} = 9$

{81}

6)  $5 = \sqrt{x+3}$

{22}

7)  $2 = \sqrt{4b}$

{1}

8)  $\sqrt{n+9} = 1$

{-8}

9)  $-8 + \sqrt{5a-5} = -3$

{6}

10)  $10\sqrt{9x} = 60$

{4}

11)  $1 = \sqrt{x-5}$

{6}

12)  $-10\sqrt{v-10} = -60$

{46}

13)  $10 + \sqrt{10m - 1} = 13$

 $\{1\}$ 

14)  $-12 = -6\sqrt{b + 4}$

 $\{0\}$ 

15)  $\sqrt{v + 3} - 1 = 7$

 $\{61\}$ 

16)  $90 = 9\sqrt{25v}$

 $\{4\}$ 

17)  $\sqrt{3n} = \sqrt{4n - 1}$

 $\{1\}$ 

18)  $\sqrt{2n - 88} = \sqrt{\frac{n}{6}}$

 $\{48\}$ 

19)  $\sqrt{\frac{x}{10}} = \sqrt{3x - 58}$

 $\{20\}$ 

20)  $\sqrt{3n + 12} = \sqrt{n + 8}$

 $\{-2\}$ 

21)  $\sqrt{n} = \sqrt{2n - 6}$

 $\{6\}$ 

22)  $\sqrt{11 - x} = \sqrt{x - 7}$

 $\{9\}$ 

23)  $\sqrt{72 - x} = \sqrt{\frac{x}{5}}$

 $\{60\}$ 

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

 $\{-1\}$ 

25)  $\sqrt{2k + 40} = \sqrt{-16 - 2k}$

 $\{-14\}$ 

26)  $\sqrt{x + 8} = \sqrt{3x + 8}$

 $\{0\}$