

Math Worksheets

Solving Radical Equations



Solve each equation. Remember to check for extraneous solutions.

$$1) \sqrt{a} = 9$$

$$16) -21 = -7\sqrt{r + 9}$$

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

$$17) 60 = 6\sqrt{5v}$$

$$3) \sqrt{r} = 4$$

$$18) x = \sqrt{40 - 3x}$$

$$4) 8 = 16\sqrt{x}$$

$$19) \sqrt{90 - 27a} = 3a$$

$$5) \sqrt{x + 3} = 18$$

$$20) \sqrt{-8n + 88} = 4$$

$$6) 6 = \sqrt{x - 7}$$

$$21) \sqrt{15r - 5} = 4r - 3$$

$$7) 4 = \sqrt{r - 3}$$

$$22) \sqrt{-64 + 32x} = 4x$$

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

$$23) \sqrt{4x + 15} = \sqrt{2x + 11}$$

$$9) 12 = \sqrt{x - 4}$$

$$24) \sqrt{12v} = \sqrt{15v - 21}$$

$$10) \sqrt{m + 5} = 8$$

$$25) \sqrt{9 - x} = \sqrt{x - 3}$$

$$11) 7\sqrt{5a} = 35$$

$$26) \sqrt{6m + 34} = \sqrt{8m + 34}$$

$$12) 6\sqrt{2x} = 48$$

$$27) \sqrt{7r + 32} = \sqrt{-8 - 3r}$$

$$13) 2 = \sqrt{6x - 32}$$

$$28) \sqrt{4k + 10} = \sqrt{2 - 4k}$$

$$14) \sqrt{304 - 4x} = 4$$

$$29) -20\sqrt{x - 13} = -40$$

$$15) \sqrt{r + 2} - 8 = 6$$

$$30) \sqrt{90 - 2x} = \sqrt{\frac{x}{4}}$$

Answers of Worksheets

Solving radical equations

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|----------------------|-----------|-----------------|
| 1) {81} | 11) {5} | 21) {2} |
| 2) {36} | 12) {32} | 22) no solution |
| 3) {16} | 13) {6} | 23) {-2} |
| 4) $\{\frac{1}{4}\}$ | 14) {72} | 24) {7} |
| 5) {321} | 15) {194} | 25) {6} |
| 6) {43} | 16) {0} | 26) {0} |
| 7) {19} | 17) {20} | 27) {-4} |
| 8) {54} | 18) {5} | 28) {-1} |
| 9) {148} | 19) {2} | 29) {17} |
| 10) {59} | 20) {9} | 30) {40} |