

1. Solve the radical equation.

$$\sqrt{5b + 49} = b + 7$$

A. $b = 0$ or $b = -\frac{19}{2}$

B. $b = 0$ or $b = \frac{7 + \sqrt{109}}{6}$

C. $b = 0$ or $b = -11$

D. $b = 0$ or $b = -9$

E. $b = 0$

F. This equation has no real solution.

G. $b = 0$ or $b = \frac{7 + \sqrt{133}}{6}$

H. $b = 0$ or $b = \frac{7 + \sqrt{-11}}{6}$

2. Solve the radical equation.

$$\sqrt[4]{2\gamma - 4} - 5 = 6$$

A. $\gamma = \frac{14647}{2}$

B. $\gamma = \frac{14649}{2}$

C. $\gamma = \frac{73229}{10}$

D. $\gamma = \frac{29287}{4}$

E. This equation has no real solution.

F. $\gamma = \frac{14645}{2}$

G. $\gamma = \frac{43937}{6}$

H. $\gamma = \frac{73227}{10}$

3. Solve the radical equation.

$$\sqrt{9p - 5} + 4 = 2$$

A. $p = \frac{9}{5}$

B. $p = 3$

C. $p = \frac{4}{3}$

D. $p = \frac{2}{3}$

E. $p = \frac{1}{4}$

F. $p = \frac{8}{5}$

G. $p = 1$

H. This equation has no real solution.

4. Solve the radical equation.

$$\sqrt[3]{3k - 5} - 2 = 4$$

A. $k = \frac{224}{3}$

B. $k = \frac{887}{12}$

C. $k = \frac{1102}{15}$

D. This equation has no real solution.

E. $k = \frac{221}{3}$

F. $k = \frac{227}{3}$

G. $k = \frac{1099}{15}$

H. $k = \frac{1114}{15}$

5. Use the distance formula to calculate the distance d between the following pair of points. Round your answer to the nearest tenth.

$$(1, 8) \text{ and } (-9, 0)$$

A. $d = 12.1$

B. $d = 13.5$

C. $d = 13$

D. $d = 13.3$

E. $d = 12.8$

F. $d = 12.6$

G. $d = 13.4$

H. $d = 12$

6. Solve the radical equation.

$$\sqrt{2k + 3} = \sqrt{7k + 5}$$

A. $k = -\frac{6}{5}$

B. $k = -\frac{2}{5}$

C. $k = \frac{8}{5}$

D. $k = 0$ or $k = \frac{3 + \sqrt{136}}{14}$

E. $k = \frac{2}{5}$

F. This equation has no real solution.

G. $k = 0$ or $k = \frac{3 + \sqrt{88}}{14}$

H. $k = 0$ or $k = \frac{3 + \sqrt{208}}{14}$

7. Solve the radical equation.

$$\sqrt{t^2 - 7t + 2} = 5t$$

A. $t = \frac{-7 + \sqrt{241}}{48}$

B. This equation has no real solution.

C. $t = \frac{-7 + \sqrt{242}}{48}$ or $t = \frac{-7 - \sqrt{242}}{48}$

D. $t = \frac{-7 + \sqrt{241}}{48}$ or $t = \frac{-7 - \sqrt{241}}{48}$

E. $t = \frac{-7 + \sqrt{233}}{48}$

F. $t = \frac{-7 + \sqrt{233}}{48}$ or $t = \frac{-7 - \sqrt{233}}{48}$

G. $t = \frac{-7 + \sqrt{242}}{48}$

H. $t = \frac{-7 + \sqrt{235}}{48}$

8. Solve the radical equation.

$$\sqrt{r - 5} = 3$$

A. This equation has no real solution.

B. $r = 14$

C. $r = 8$

D. $r = 23$

E. $r = 12$

F. $r = 5$

G. $r = 10$

H. $r = 9$