

Radical and rational equations

$$2\sqrt{9x} - 6 = 10 - 2\sqrt{x}$$

What value of x is the solution to the above equation?

$$n + 2 = \sqrt{a - n}$$

For what value of the constant a does the above equation have $n = 1$ as the only solution?

$$8\sqrt{p} - 2\sqrt{3} = \sqrt{3} + 3\sqrt{p}$$

What value of p is the solution to the above equation?

(A) $\frac{3\sqrt{3}}{5}$

(B) $\frac{9}{5}$

(C) $\frac{9}{25}$

(D) $\frac{27}{25}$

Radical and rational equations

$$4p^{\frac{1}{2}} + 5p = 0$$

What is the least value of p that is a solution to the above equation?

(A) $-\frac{5}{4}$

(B) $-\frac{4}{5}$

(C) 0

(D) $\frac{4}{5}$

$$k = \sqrt{10 + 3k} - 4$$

What are all the possible values of k that satisfy the equation above?

(A) -2 only

(B) 2 only

(C) -2 and -3

(D) 2 and -2
