

COLLEGE ALGEBRA QUIZ

(1) Solve $\frac{7}{2x+3} + \frac{1}{x-5} = 0$

Solution: $\frac{32}{9}$

(2) Solve $\frac{481}{12x+14} - \frac{385}{12x+10} = 1$

Solution: 1, 5

(3) Solve $\sqrt{3x+1} - 1 = \sqrt{5x}$

Solution: $x = 0$

(4) Solve $\sqrt{x-4} - \sqrt{x-1} = 1$

Solution: There is no solution.

(5) Solve $\frac{1}{A} + \frac{1}{B} = \frac{1}{C}$ for C.

Solution: $\frac{AB}{B+A}$

(6) Solve $\sqrt{4x+1} + \sqrt{3x} = 1$.

(a) There are two solutions.

(b) There is a single solution which is less than 5.

(c) There is a single solution which is greater than 5.

(d) There is no solution.

Solution: (b) There is a single solution which is less than 5.

(7) Solve $\sqrt{\sqrt{\sqrt{x}}} = 4$

Solution: $x = 65,636$

(8) Solve $(t-3)^{\frac{2}{7}} = 4$

Solution: $t = 131$