

COLLEGE ALGEBRA QUIZ

(1) Solve $(2y + 7)(5y - 1) = 0$.

Solution: $-\frac{7}{2}$ and $\frac{1}{5}$.

(2) Solve $x^2 + 3x - 4$.

Solution: -4 and 1 .

(3) Solve $3x^2 - x = 10$.

Solution: $-\frac{5}{3}, 2$.

(4) Solve $x^2 + 15 = 0$.

Solution: $-\sqrt{15}i, \sqrt{15}i$.

(5) Find the zero(s) of $f(x) = x^2 - 4x + 4$.

Solution: 2

(6) Find the zero(s) of $f(x) = 3x^2 - x - 7$

Solution: $\frac{1 \pm \sqrt{85}}{6}$

(7) Solve by completing the square, $3x^2 - 18x - 6 = 0$.

Solution: $3 \pm \sqrt{11}$

(8) Solve by using the quadratic formula, $x^2 - 6x = -3$.

Solution: $3 \pm \sqrt{6}$

(9) Two boats leave the same dock, Boat A travels due north and the Boat B travels due west. If Boat A is going 30 km/h slower than the Boat B, then they are 275.772 km apart after 5 hours. Find the speed of each boat.

Solution: Boat A has speed of 21 km/hr, Boat B has speed of 51 km/hr.