

Name: _____

College Algebra: Quiz #15 (Solutions)

1. Find all solutions of the following equation.

$$x^3 - 15x^2 + 54x = 0$$

Solution: Note that the terms of this polynomial have a common factor, namely x . Un-distributing this common factor gives the equation

$$x(x^2 - 15x + 54) = 0,$$

which factors further as

$$x(x - 6)(x - 9) = 0.$$

By the Zero Product Property, the solutions of this equation are $x = 6$, $x = 9$, and $x = 0$.