

14.8 Solving Quadratic Equations by Factoring

Zero Factor Theorem (The Principle of Zero Products)

For any real numbers a and b :

If $ab = 0$, then $a = 0$ or $b = 0$.

Ex. Solve:

(a) $3a(a+5)^2 = 0$

(b) $2(4x-3)(9x+1) = 0$

Ex. Solve:

(a) $x(x-4) = 5$

(b) $9t^3 + 12t^2 = 45t$

Ex. Find the x -intercepts of $y = 2x^2 + 3x - 9$.