QUADRATIC EQUATIONS WITHOUT A CONSTANT TERM

To solve $ax^2 + bx = 0$: the equation has no constant term, so the common factor is x or a multiple of x.

Example 10

Solve:

(a) $x^2 - 3x = 0$ **(b)** $4x^2 = 8x$

Solution

(a) $x^2 - 3x = 0$

$x(x - 3) = 0$

$x = 0$ or $x = 3$

(b) $4x^2 = 8x$

$4x^2 - 8x = 0$

$4x(x - 2) = 0$

$x = 0$ or $x = 2$

Divide by 4, do **not** divide by x