Equations

x^3 can be positive, negative and 0

When $x^3 < 0 \Rightarrow x < 0$

$x^3 \geq 0 \Rightarrow x \geq 0$

$x^3 = 8$

$x = 2$

$x^3 = -27$

$x = -3$

$x^3 = a^3$

$x = a$

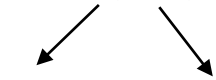
$x^3 = - a^3$

$x = - a$ (can be any number)

Solve: $x^3 = x$

$x^3 - x = 0$

$x(x^2 - 1) = 0$



$x = 0$

$x^2 – 1 = 0$

$x^2 = 1$

$x = \pm 1$