Algebra 2 Answers

Given: $a^3 + b^3 + c^3 = 7$

$\frac{b}{ac} = 0$

$a + c = 1$

$\frac{b}{ac} = 0 \Rightarrow b = 0$

$a^3 + c^3 = 7$

$a + c = 1 \Rightarrow c = 1 - a$

$a^3 + (1 - a)^3 = 7$ $\qquad$ $x^3 + y^3 = (x + y).(x^2 - xy + y^2)$

1. $[a^2 - a(1 - a) + (1-a)^2] = 7$

$a^2 + a^2 - a + 1 + a^2 - 2a = 7$

$3a^2 - 3a + 1 = 7$

$3a^2 - 3a - 6 = 0$

$a^2 - a - 2 = 0$

$(a - 2).(a + 1) = 0$

$b = 0$	$b = 0$
$a = -1$	$a = 2$
$c = 1 - a = 2$	$c = 1 - 2 = -1$