

Algebra

Given:

$$a + b + c = 4$$

$$ab + c = 7$$

$$ac + b = -1$$

Prove that ;

$$a = 2$$

$$b = 5$$

$$c = -3$$

$$a(b+c) + (b+c) = 6$$

$$b+c = 4 - a$$

$$a(4 - a) + 4 - a = 6$$

$$4a - a^2 + 4 - a = 6$$

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

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

$$a = 1$$

$$a(b - c) - (b - c) = 8$$

$$a = 1$$

$$(b - c) - (b - c) = 8, 0 \neq 8$$

$$a \neq 1$$

$$a - 2 = 0$$

$$a = 2$$

$$b + c = 4 - 2 = 2$$

$$2b + c = 7$$

$$b = 5, c = 2 - 5 = -3$$