63 Toni is solving this equation by completing the square.

$$ax^2 + bx + c = 0 \text{ (where } a \geq 0)$$

Step 1: $ax^2 + bx = -c$

Step 2: $x^2 + \dfrac{b}{a}x = -\dfrac{c}{a}$

Step 3:   ?

Which should be Step 3 in the solution?

A $x^2 = -\dfrac{c}{b} - \dfrac{b}{a}x$

B $x + \dfrac{b}{a} = -\dfrac{c}{ax}$

C $x^2 + \dfrac{b}{a}x + \dfrac{b}{2a} = -\dfrac{c}{a} + \dfrac{b}{2a}$

D $x^2 + \dfrac{b}{a}x + \left(\dfrac{b}{2a}\right)^2 = -\dfrac{c}{a} + \left(\dfrac{b}{2a}\right)^2$

CSA00072

64 Four steps to derive the quadratic formula are shown below.

I	$x^2 + \dfrac{bx}{a} = \dfrac{-c}{a}$
II	$\left(x + \dfrac{b}{2a}\right)^2 = \dfrac{b^2 - 4ac}{4a^2}$
III	$x = \pm\sqrt{\dfrac{b^2 - 4ac}{4a^2}} - \dfrac{b}{2a}$
IV	$x^2 + \dfrac{bx}{a} + \left(\dfrac{b}{2a}\right)^2 = \dfrac{-c}{a} + \left(\dfrac{b}{2a}\right)^2$

What is the correct order for these steps?

A   I, IV, II, III

B   I, III, IV, II

C   II, IV, I, III

D   II, III, I, IV

CSA20062

65 Which is one of the solutions to the equation $2x^2 - x - 4 = 0$?

A $\dfrac{1}{4} - \sqrt{33}$

B $-\dfrac{1}{4} + \sqrt{33}$

C $\dfrac{1 + \sqrt{33}}{4}$

D $\dfrac{-1 - \sqrt{33}}{4}$

63	D
64	A
65	C