- (1) What are the solutions to the equation $x^2 14x = 11$?
- (1) $x = -7 \pm 1\sqrt{38}$
- (1) $x = 7 \pm 1\sqrt{38}$ (2) $x = -7 \pm 2\sqrt{15}$ (3) $x = 7 \pm 1\sqrt{38}$ (4) $x = 7 \pm 2\sqrt{15}$

- (2) Which equation has the same solution as $x^2 10x + 14 = 0$
- $(1) (x+5)^2 = 11$ $(2) (x-5)^2 = 39$ $(3) (x+5)^2 = 39$ $(4) (x-5)^2 = 11$

(3) The method of completing the square was used to solve the equation $4x^2 + 8x - 52 = 0$. Which equation is a correct step when using this method?

(1)
$$(x-1)^2 = -53$$

(2) $(x-1)^2 = -14$
(3) $(x+1)^2 = 53$
(4) $(x+1)^2 = 14$

$$(2)(x-1)^2 = -14$$

$$(3)(x+1)^2 = 53$$

$$(4) (x+1)^2 = 14$$

(4) When directed to solve a quadratic equation by completing the square, Sam arrived at the equation $(x + \frac{7}{2})^2 = \frac{69}{4}$. Which equation could have been the original equation given to Sam?

$$(1) x^2 + 7x + 13 = 0$$

$$(1) x + 7x + 16 = 0$$

$$(2) x^{2} - 7x + 13 = 0$$

$$(3) x^{2} - 7x - 5 = 0$$

$$(4) x^{2} + 7x - 5 = 0$$

(3)
$$x^2 - 7x - 5 = 0$$