Quadratic Equation | Standard Form

A) Express each quadratic equation in standard form.

1) $3 - 19x^2 = 7x - 6x^2$

2) $2(x + 5) + 6x^2 = -x^2 + 10$

3) $4x = 5x + 2x^2 + 8$

4) $x(x - 8) - 16 = -8x$

B) Express the given equation in standard form($ax^2 + bx + c = 0$). Identify the values of a, b, c.

1) $x(x - 4) - 3 = -3(x + 1)$

$a =$ _____, $b =$ _____, $c =$ _____

2) $6 = 10x^2 - 8x - 5$

$a =$ _____, $b =$ _____, $c =$ _____

C) 1) Which of the following quadratic equations is in standard form?

i) $11x^2 + x + 3 = 0$ ii) $x^2 - 3x = 11$ iii) $11x + 3x^2 - 1 = 0$

2) Which of the following quadratic equations is not in standard form?

i) $13x^2 + 2x - 4 = 0$ ii) $4x^2 - 2 = 13x$ iii) $4x^2 + 2x - 13 = 0$

Quadratic Equation | Standard Form

Answer key

A) Express each quadratic equation in standard form.

1) $3 - 19x^2 = 7x - 6x^2$

$13x^2 + 7x - 3 = 0$

2) $2(x + 5) + 6x^2 = -x^2 + 10$

$7x^2 + 2x = 0$

3) $4x = 5x + 2x^2 + 8$

$2x^2 + x + 8 = 0$

4) $x(x - 8) - 16 = -8x$

$x^2 - 16 = 0$

B) Express the given equation in standard form($ax^2 + bx + c = 0$). Identify the values of a, b, c.

1) $x(x - 4) - 3 = -3(x + 1)$

$x^2 - x = 0$

$a =$ **1**, $b =$ **−1**, $c =$ **0**

2) $6 = 10x^2 - 8x - 5$

$10x^2 - 8x - 11 = 0$

$a =$ **10**, $b =$ **−8**, $c =$ **−11**

C) 1) Which of the following quadratic equations is in standard form?

✓ i) $11x^2 + x + 3 = 0$ ii) $x^2 - 3x = 11$ iii) $11x + 3x^2 - 1 = 0$

2) Which of the following quadratic equations is not in standard form?

i) $13x^2 + 2x - 4 = 0$ ✓ ii) $4x^2 - 2 = 13x$ iii) $4x^2 + 2x - 13 = 0$