

# Unit 1 Day 9: Warm Up

1

Which of the following is an equivalent form of the expression  $15x + 24ax$  ?

- A)  ~~$39ax^2$~~
- B)  ~~$39(a+2x)$~~
- C)  ~~$(5+8a)x$~~
- D)  $(15 + 24a)x$

2

The formula  $d = rt$  is used to calculate the distance an object travels over a period of time,  $t$ , at a constant rate,  $r$ . Based on this formula, what is the rate,  $r$ , in terms of  $d$  and  $t$  ?

- A)  $r = \frac{d}{t}$
- B)  $r = dt$
- C)  $r = \frac{t}{d}$
- D)  $r = d - t$

$$d = r \cdot t$$

$$\frac{d}{t} = r$$

3

Which of the following ordered pairs  $(x, y)$  satisfies both equations  $y = x^2 + 3x - 4$  and  $x = y - 4$  ?

- A)  ~~$(8, -4)$~~
- B)  $(2, 6)$
- C)  $(3, 14)$
- D)  $(5, 9)$

$$y = x^2 + 3x - 4$$

$$x = y - 4$$

$$-4 = 2^2 + 3(2) - 4$$

$$6 = 2^2 + 3(2) - 4$$

$$0 = 2 - 4 - 4$$

$$2 = 6 - 4$$

4

Which of the following is a solution to the equation  $2x^2 + 4x = 3 + 3x^2$  ?

- A) -1
- B) 0
- C) 3
- D) 6

$$2(-1)^2 + 4(-1) = 3 + 3(-1)^2$$

$$2 - 4 = 3 + 3$$

$$-2 = 6$$

$$2(0)^2 + 4(0) = 3 + 3(0)^2$$

$$0 = 3$$

$$2(3)^2 + 4(3) = 3 + 3(3)^2$$

$$2(9) + 12 = 3 + 3(9)$$

$$18 + 12 = 3 + 27$$

