# 7.2 Review Worksheet

Wednesday, November 09, 2011
7:00 PM

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## 7.2 Multiplying Polynomials by Monomials

**1.** Use the distributive property to expand each expression.

**a)** $(4x + 1)(2x)$ $8x^2 + 2x$

**b)** $(-x)(x + 4)$ $-x^2 - 4x$

**c)** $(2x)(3x - 1)$ $6x^2 - 2x$

**d)** $(2x)(3x - 1)$ $6x^2 - 2x$

**2.** Use the distributive property to expand each expression.

**a)** $(5m)(2m + 3)$ $10m^2 + 15m$

**b)** $(-n)(n + 1)$ $-n^2 - n$

**c)** $(1.3x)(2x - 5)$ $2.6x^2 - 6.5x$

**d)** $(-m + 2)(3m)$ $-3m^2 + 6m$

**e)** $(4.1k - 5.3)(-3k)$ $-12.3k^2 + 15.9k$

**3.** Which of the equations best shows the use of the distributive property?

**A** $3(4x + 2x) = 3(6x)$
**B** $5(2 - 3x) = 5(-3x + 2)$
**C** $2(-x + 4) = (-x + 4)2$
**D** $4(2x - 7) = (4)(2x) + (4)(-7)$

**4.** Sergio wanted to determine $5x(7x - 2)$. His solution is shown below.

| | |
|---|---|
| $(5x)(7x) + (5x)(-2)$ | Step 1 |
| $= (5)(7)(x)(x) + (5)(-2)(x)(-2)$ | Step 2 |
| $= 35x^2 - 10(-2x)$ | Step 3 |
| $= 35x^2 + 20x$ | Step 4 |

$5x(7x-2)$
$5(7)xx - 2(5x)$
$35x^2 - 10x$

Sergio discovered an error in his solution. In which step did Sergio make the error? Show the correct solution.

**5.** Multiply.

**a)** $(4m + 1)(3m) =$ $12m^2 + 3m$

**b)** $(2x - 3)(-4x) =$ $-8x^2 + 12x$

**c)** $(4.2n)(2n - 7) =$ $8.4n^2 - 29.4n$

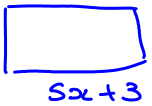
**d)** $\left(\frac{2}{3}m + 4\right)(-9m) =$ $-\frac{18}{3}m^2 - 36m = -6m^2 - 36m$

**e)** $\left(\frac{-4}{3}x\right)(6x - 12) =$ $-\frac{24x^2}{3} + \frac{48x}{3} = -8x^2 + 16x$

**4.** The *length* of a cement pad on a playground is **3 m longer** than the *width*. The width is **5x** m.

**a)** Write an expression for the *area* of the cement pad.

$A = 5x(5x + 3) = 25x^2 + 15x$




$5(2) = 10$
$5(2) + 3$
$13$

**b)** If $x = 2$ m, what is the *area* of the cement pad?

$A = 10(13)$
$= 130 \text{ m}^2$

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