

7.2 Multiplying Polynomials by Monomials

1. Use the distributive property to expand each expression.

a) $(4x + 1)(2x)$

b) $(-x)(x + 4)$

c) $(2x)(3x - 1)$

d) $(2x)(3x - 1)$

2. Use the distributive property to expand each expression.

a) $(5m)(2m + 3)$

b) $(-n)(n + 1)$

c) $(1.3x)(2x - 5)$

d) $(-m + 2)(3m)$

e) $(4.1k - 5.3)(-3k)$

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

$= x \ 35x^2 + 20x$

Step 4

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

5. Multiply.

a) $(4m + 1)(3m) =$

b) $(2x - 3)(-4x) =$

c) $(4.2n)(2n - 7) =$

d) $\left(\frac{2}{3}m + 4\right)(-9m) =$

e) $\left(\frac{-4}{3}x\right)(6x - 12) =$

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.

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