9.1 Warm-Up:

Simplify the expression.

1. $5x + 4(2x + 7)$
2. $9x - 6(x + 2) + 3$
3. Imported square tiles used for a kitchen floor measure 18 centimeters on one side. What is the area of a floor composed of 50 tiles? Use $A = s^2$ for the area of a tile.

1. $5x + 4(2x+7)$

$5x + 8x + 28$

$13x + 28$

2. $9x - 6(x+2) + 3$

$9x - 6x + -12 + 3$

$3x + -9$

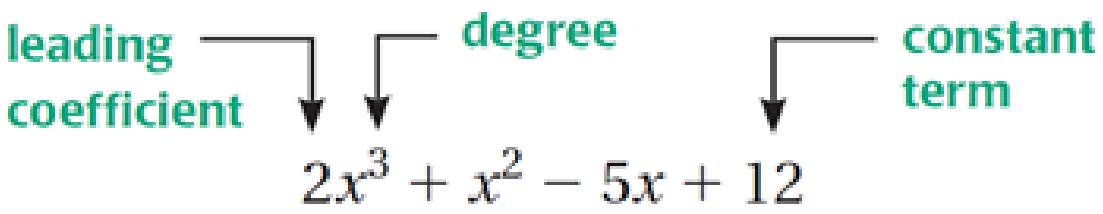
3. $A = 18^2$

$A = 324\ cm^2$

(area of one tile)

$50 \cdot 324 = 16{,}200\ cm^2$

polynomials -



$8x^{15}$.

write your own polynomial $6x^4 - x^2 + 12x - 8$.

$4x^2 + x^4 - 6x + 10$

$4x^2 + 2x - 24$

$3x^5 + x^4 - 7x + 14$

$509x^9 + x^2 - 54x^2 + 3304$

$4x^5 + x^3 + 2x + 5$

$15q^4 + q + 2q^3 + 128$

Add polynomials (add their like terms)
Find the sum.

a. $(2x^3 - 5x^2 + x) + (2x^2 + x^3 - 1)$

$2x^3 + x^3 - 5x^2 + 2x^2 + x -$

$3x^3 - 3x^2 + x - 1$

Add polynomials (add their like terms)
Find the sum.

b. $(3x^2 + x - 6) + (x^2 + 4x + 10)$

$$\begin{array}{r} 3x^2+1x-6 \\ +\quad 1x^2+4x+10 \\ \hline 4x^2+5x+4 \end{array}$$

Add polynomials (add their like terms)
Find the sum.

$(5x^3 + 4x - 2x) + (4x^2 + 3x^3 - 6)$

$5x^3 + 3x^3 + 4x - 2x + 4x^2 - 6$

$8x^3 + 2x + 4x^2 - 6$

$$\begin{array}{r} 5x^3 \quad 0x^2 + 4x \quad 0 \\ +\,3x^3 \quad 4x^2 - 2x \quad -6 \\ \hline 8x^3 + 4x^2 + 2x + -6. \end{array}$$

Subtract polynomials (add the opposite)
Find the difference.

$$(4n^2 + 5) + (+2n^2 + -2n + 4)$$

$4n^2 + 2n^2 + -2n + 5 + 4$

$6n^2 + -2n + 9$

Subtract polynomials (add the opposite)
Find the difference.

$+(4x^2 - 3x + 5) + (3x^2 + x + 8)$

$-1(3x^2 - x - 8)$

$-3x^2 + x + 8$.

$4x^2 - 3x^2 - 3x + x + 5 + 8$

$1x^2 - 2x + 13$

Subtract polynomials (add the opposite)

Find the difference.

$$(4x^2 - 7x) - (5x^2 + 4x - 9)$$

$(4x^2-7x)+(-5x^2+-4x+9)$

$4x^2+-5x^2 \quad -7x+-4x+9$

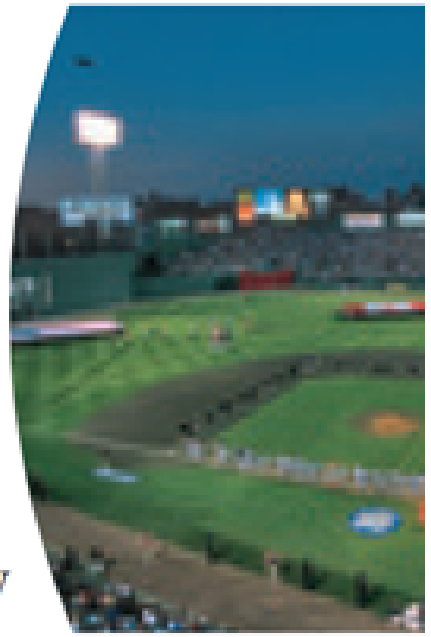
$-x^2-11x+9$.

BASEBALL ATTENDANCE Major League Baseball teams are divided into two leagues. During the period 1995–2001, the attendance N and A (in thousands) at National and American League baseball games, respectively, can be modeled by

$$N = -488t^2 + 5430t + 24{,}700 \text{ and}$$

$$A = -318t^2 + 3040t + 25{,}600$$

where t is the number of years since 1995. About how many people attended Major League Baseball games in 2001?



$-488t^2 + 5430t + 24{,}700$ $\quad t = 2001 - 1995 = 6$

$+ -318t^2 + 3040t + 25{,}600$

$-806t^2 + 8470t + 50{,}300$ (total) $\quad$ 72,104 ppl

$-806 \cdot 6^2 + 8470 \cdot 6 + 50{,}300 = -29016 + 50820 + 50{,}300 =$

Homework:

pp 557-559
#'s 17-26, 44-54 E