Algebra 1 8.2
Multiply a polynomial by a monomial
Solve equations involving the product of a monomial and a polynomial

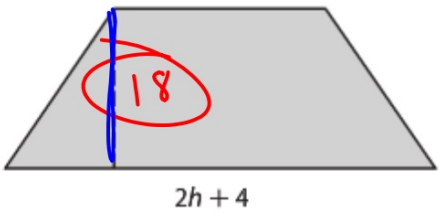
monomial
polynomial
distributive property
like terms

Whiteboards
Connect 4 (if time)

Area of trapezoid...

Standardized Test Example 3 Write and Evaluate a Polynomial Expression

GRIDDED RESPONSE The theme for a school dance is "Solid Gold." For one decoration, Kana is covering a trapezoid-shaped piece of poster board with metallic gold paper to look like a bar of gold. If the height of the poster board is 18 inches, how much metallic paper will Kana need in square inches?



$18+1=19$

$2\cdot 18+4$

40

$* \; A=\frac{1}{2}h(b_1+b_2)$

$=\frac{1}{2}\cdot 18(19+40)$

$=\frac{1}{2}\cdot 18\cdot 59$

$=531\ in^2$

GuidedPractice

Solve each equation.

4A. $2x(x + 4) + 7 = (x + 8) + 2x(x + 1) + 12$

$2x \cdot x + 2x \cdot 4$ $\quad$ $2x \cdot x + 2x \cdot 1$

$2x^2 + 8x + 7 = x + 8 + 2x^2 + 2x + 12$

$2x^2 + 8x + 7 = 3x + 2x^2 + 20$

$-2x^2 \quad -3x \quad -7 \quad -3x \quad -2x^2 \quad -7$

$\frac{5x}{5} = \frac{13}{5}$

4B. $d(d+3) + d(d-4) = 9d - 16$

$d^2 + d \cdot 3 \quad -1d \cdot d \quad -1d \cdot -4$

$d^2 + 3d - 1d^2 + 4d = 9d - 16$

$7d = 9d - 16$

$-9d \quad -9d$

$-2d = -16$

$\frac{-2d}{-2} = \frac{-16}{-2}$

$d = 8$

12. $-6(11 - 2c) = 7(-2 - 2c)$

13. $t(2t + 3) + 20 = 2t(t - 3)$