Instruction

Lesson 1.3.3: Multiplying Polynomials

Georgia Standard of Excellence

MGSE9–12.A.APR.1

Warm-Up 1.3.3 Debrief

1. The bedroom has a length of 12 feet and a width of 8 feet.

    Replace *l* and *w* in the formula for area with the given values of *l* and *w*.

    $A = lw$

    $A = 12 \cdot 8$

    $A = 96$

    The area of the bedroom is 96 ft^2.

2. The living room has a length of 12 feet and a width of 9 feet.

    Replace *l* and *w* in the formula for area with the given values of *l* and *w*.

    $A = lw$

    $A = 12 \cdot 9$

    $A = 108$

    The area of the living room is 108 ft^2.

3. The hall has a length of x^2 feet and a width of *x* feet.

    Replace *l* and *w* in the formula for area with the given values of *l* and *w*.

    $A = lw$

    $A = x^2 \cdot x$

    Use the properties of exponents to simplify the answer. Since the two factors have the same base, *x*, add the exponents.

    $A = x^2 \cdot x$

    $A = x^{2+1}$

    $A = x^3$

    The area of the hall is x^3 ft^2.

Connection to the Lesson

- Students will extend their understanding of finding products to finding products of polynomials.

- Students will need to replace variables in a formula with given quantities.

- Students will simplify expressions by using properties of exponents and multiplication.