

## Algebra RH

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**Essential Question:** How do we divide polynomials?

**Do Now:**

Find the area of a triangular garden whose dimensions are  $x + 4$  and  $2x - 1$ . ( $A = \frac{bh}{2}$ )

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### Dividing Polynomials:

Divide each term of the polynomial by the denominator.

Divide and express in standard form.

1)  $\frac{20x^2 + 10x}{5x}$

2)  $\frac{-16x^3 + 8x^2 + 4x}{4x}$

3)  $6x^3 + 4x^2 + 2x$  divided by  $-2x$

4)  $\frac{20m^2 - 8m + 4}{2m}$

5)  $(20x^2 + 12x) \div 4x$

6)  $(b^2 - 12b + 5) \div 2b$

7)  $(8r^2 + 5r - 20) \div 4r$

8)  $\frac{12p^3r^2 + 18p^2r - 6pr}{6p^2r}$

9) The volume of a rectangular pyramid is one-third the product of the area of its base and its height. Find an expression for the volume of a rectangular pyramid whose base has an area of  $3x^2 + 12x + 9$  square feet and whose height is  $x + 3$  feet.