5.6b Dividing Polynomials Blank Notes

Monday, January 4, 2016 8:45 AM

5.6b – Dividing Polynomials by Monomials
Math 9 Notes
Name_____ _____

Warmup

Divide $\frac{12x^3yz^2}{-3xz^2}$ $= -4x^2y$

$12 \div -3$ x^{3-1}

What steps did you use to solve the above division?

1. Divide coefficients.
2. Divide 'like terms' by subtracting exponents

Ex1 - Divide

$\frac{5xyz+10xy}{5xy} = \frac{5xyz}{5xy} + \frac{10xy}{5xy}$

$= z + 2$

What are the steps involved?

1. Divide every term on top by the term on the bottom
2. Use the same steps above

Ex2 - Simplify

a) $\frac{18x^2y^2z^2-12x^3yz^2}{6xyz} = \frac{18x^2y^2z^2}{6xyz} - \frac{12x^3yz^2}{6xyz}$ /2 marks

$\frac{x^2}{x} = x^{2-1}$

$= 3xyz - 2x^2z$

b) $\frac{-10a^5b^4+5a^6b^8}{-5ab^4} = \frac{-10a^5b^4}{-5ab^4} + \frac{5a^6b^8}{-5ab^4}$

$= 2a^4 - a^5b^4$

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c) $\frac{27y^3 - 9y + 18y^2}{9y} = \frac{27y^3}{9y} - \frac{9y}{9y} + \frac{18y^2}{9y}$

$= 3y^2 - 1 + 2y$

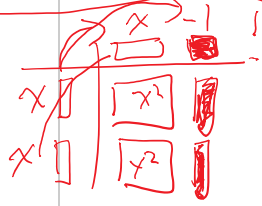
* **Reflection:** What are the steps to dividing a polynomial by a monomial? What results when a top term and bottom term perfectly cancel?

HW: dividing waksheet

Quiz Friday
- multiplying polynomials
  - 1 tile question
- dividing monomials
  - not including today

$\frac{2x^2}{x}$, $\frac{35x^2y^5z}{5xy^2}$

$6(2x+5)$; $2xy(3x^2+9)$; $(x+5)(x+2)$



$= 2x^2 - 2x$

answers posted on my blog
- today's hw

Ch.5 Test Thursday Jan. 14