

# 7.3 Dividing Polynomials by Monomials

October 21, 2015 12:10 PM

- 1 Divide numerical coefficients (every term)
- 2 Divide like variables

Ex. #1

$$a) \frac{6x+3}{3}$$

$$= \frac{6x}{3} + \frac{3}{3}$$

$$= \boxed{2x+1}$$

$$b) \frac{14w-7}{-7}$$

$$= \frac{14w}{-7} - \frac{7}{-7}$$

$$= \boxed{-2w+1}$$

$$c) (9xy-6x) \div -3x$$

or  $\frac{9xy-6x}{-3x}$

$$= \frac{\cancel{9xy}}{\cancel{-3x}} - \frac{\cancel{6x}}{\cancel{-3x}} \Rightarrow$$

$$\boxed{-3y+2}$$

$$d) \frac{6x^2-8x}{2x}$$

$$= \frac{6x^2}{2x} - \frac{8x}{2x}$$

$$= \boxed{3x-4}$$

$$e) \frac{5xy^2+10xy}{5xy}$$

$$= \frac{\cancel{5xy^2}}{\cancel{5xy}} + \frac{\cancel{10xy}}{\cancel{5xy}}$$

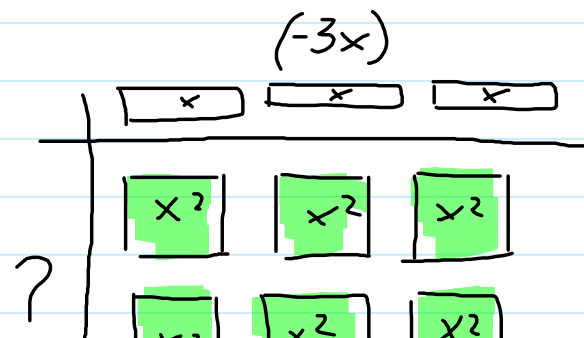
$$= \boxed{y+2}$$

Using a MODEL

Ex #2

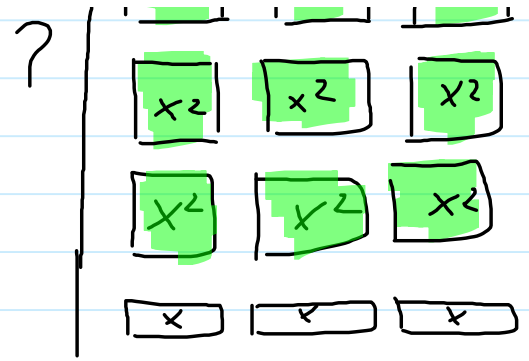
$$\frac{9x^2-3x}{-3x}$$

a . 2     ? ..

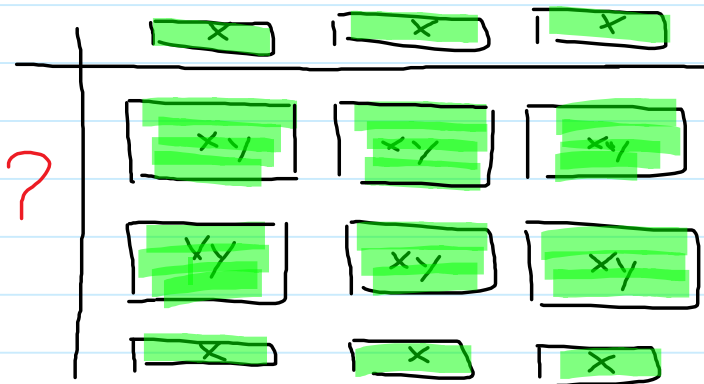


$$= \frac{9x^2}{-3x} - \frac{3x}{-3x}$$

$$= \boxed{-3x + 1}$$



Ex #3 Division statement and solve



$$\frac{6xy + 3x}{3x} \checkmark$$

$$= \frac{6xy}{3x} + \frac{3x}{3x}$$

$$= \boxed{2y + 1} \checkmark$$

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