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UNIT 4: POLYNOMIALS

**SECTIONS 5.5 AND 5.6:
MULTIPLYING AND
DIVIDING A
POLYNOMIAL BY A
CONSTANT OR MONOMIAL**

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MATH 9



WHAT'S THE POINT OF TODAY'S LESSON?

We will continue working on the Math 9 Specific Curriculum Outcome (SCO) "Patterns and Relations 7" OR PR7 which states:

PR7: "Model, record and explain the operations of multiplication and division of polynomial expressions (limited to polynomials of degree less than or equal to 2) by monomials concretely, pictorially and symbolically."



What does THAT mean???

SCO PR7 means that we will multiply and divide polynomials with one or more terms by monomials (expressions containing only one term). We will do this with pictures (algebra tiles) and without. The largest exponent allowed is 2.



WARM-UP: Multiply or divide as indicated.

$$1. \quad -9(-7m^2 + 4m - 8) \quad 2. \quad \frac{-28c^2 + 35d^2 - 14cd + 7}{-7}$$

$$= 63m^2 - 36m + 72 \quad = 4c^2 - 5d^2 + 2cd - 1$$

$$3. \quad -6x(-9x^2 - 4xy + 8y) \quad 4. \quad \frac{-25pq^2 + 15q^2 + 5q^2}{-5q^2}$$

$$= 54x^3 + 24x^2y - 48xy \quad = 5pq - 3q + 1$$

HOMEWORK QUESTIONS???
(pgs 255/6/7, #10ab, 11, 16, 21, 23 and 25)

$$23. a) \quad \frac{54s^2}{6}$$

$$(1 \text{ face}) = 9s^2$$

$$b) \quad \sqrt{9s^2}$$

$$(1 \text{ edge}) = 3s$$

$$\begin{array}{c} \boxed{9s^2} \\ | \\ ? \\ 3s \end{array}$$

HOMEWORK QUESTIONS???
(pgs 255/6/7, #10ab, 11, 16, 21, 23 and 25)

$$\begin{aligned} 25. & \left[\underline{2x^2} - \underline{8x} + \underline{3xy} + 5 \right] + \left[\underline{24x^2} - \underline{16x} - \underline{12xy} \right] \\ & \div 4x \\ & = \frac{26x^2 - 24x - 9xy + 5}{4x} \\ & = \frac{26}{4}x - 6 - \frac{9}{4}y + \frac{5}{4x} \\ & = \frac{13}{2}x - 6 - \frac{9}{4}y + \frac{5}{4x} \end{aligned}$$

REMEMBER...

$$\begin{array}{c} |x + |x \\ \underbrace{\quad\quad} \\ = 2x \end{array}$$

$$\begin{array}{c} \text{add } 1+1 \\ x'(x) \\ = x^2 \end{array}$$

CONCEPT REINFORCEMENT:

"EXTRA PRACTICE 5 AND 6" (worksheets)