

## Curriculum Outcome

- (PR 5) Demonstrate an understanding of polynomials (limited to of degree less than or equal to 2).
- (PR 6) Model, record and explain the operations of addition and subtraction of polynomial expressions, concretely, pictorially and symbolically (limited to polynomials of degree less than or equal to 2).
- (PR 7) 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.

**Student Friendly:**

**"Multiplying & Dividing Polynomials by a monomial "**



# Warm Up



Quick Review: -

Simplify the following

$$1) 2x^2 - 5xy + 6x - 8x^2 + 9xy - 4x$$

$$2) (-5y^2 + 6y - 3) + (4y^2 - 5y - 4)$$

$$3) (10r^2 - 7p - 6y) - (7r^2 - 2p + 8y)$$

$$4) -8(-3xy^2 + 6xy + 7x)$$

$$5) (15r - 45m + 125x - 55p) \div (-5)$$

$$6) 2m^3p^4 (5mp^2 + 7mp - 3p)$$

$$7) \frac{(12w^3r^2 - 18w^5r^6 - 24w^6r^{12})}{6w^3r^2}$$



# Warm Up



Quick Review:

Simplify the following

1)  $2x^2 - 5xy + 6x - 8x^2 + 9xy - 4x$

$$2x^2 - 8x^2 - 5xy + 9xy + 6x - 4x$$

$$-6x^2 + 4xy + 2x$$



# Warm Up



Quick Review:

Simplify the following

$$2) (-5y^2 + 6y - 3) + (4y^2 - 5y - 4)$$

$$-5y^2 + 6y - 3 + 4y^2 - 5y - 4$$

$$-5y^2 + 4y^2 + 6y - 5y - 3 - 4$$

$$-y^2 + y - 7$$



# Warm Up



Quick Review:

Simplify the following

$$3) (10r^2 - 7p - 6y) - (7r^2 - 2p + 8y)$$

$$10r^2 - 7p - 6y - 7r^2 + 2p - 8y$$

$$10r^2 - 7r^2 - 7p + 2p - 6y - 8y$$

$$3r^2 - 5p - 14y$$



# Warm Up



$$4) -8(-3xy^2 + 6xy + 7x)$$

$$24xy^2 - 48xy - 56x$$



# Warm Up



$$5) (15r - 45m + 125x - 55p) \div (-5)$$

$$\frac{15r}{-5} - \frac{45m}{-5} + \frac{125x}{-5} - \frac{55p}{-5}$$

$$-3r + 9m - 25x + 11p$$



# Warm Up



$$6) 2m^3p^4 (5mp^2 + 7mp - 3p)$$

$$10m^4p^6 + 14m^4p^5 - 6m^3p^5$$





# Warm Up



$$7) \frac{(12w^3r^2 - 18w^5r^6 - 24w^6r^{12})}{6w^3r^2}$$

$$\frac{12w^3r^2}{6w^3r^2}$$

$$\frac{-18w^5r^6}{6w^3r^2}$$

$$\frac{-24w^6r^{12}}{6w^3r^2}$$

$$2 - 3w^2r^6 - 4w^3r^{10}$$

## Multiplication Vs Division Statements


Copy the shape:

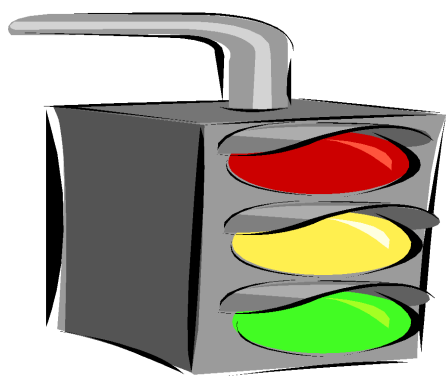
Write the multiplication statement and division statement for the above diagram

**Multiplication**

$$\begin{aligned}
 & \mathbf{5 (4x + 3)} \\
 & \mathbf{= 20x + 15}
 \end{aligned}$$

**Division**

$$\begin{aligned}
 & \mathbf{\frac{20x + 15}{5}} \\
 & \mathbf{= 4x + 3}
 \end{aligned}$$



Now it is  
time for  
Classwork  
Homework