

Name: Keyy Class: \_\_\_\_\_

### Practice - Polynomials 3

Divide each of the following.

$$1. \frac{18x^6}{9x^2} = 2x^4$$

$$2. \frac{20a^7}{5a^5} = 4a^2$$

$$3. \frac{35m^3n^2}{7mn^2} = 5m^2$$

$$4. \frac{42x^5y^2}{6x^3y} = 7x^2y$$

$$5. \frac{3a + 6}{3} = a + 2$$

$$6. \frac{4x - 8}{4} = x - 2$$

$$7. \frac{9b^2 - 12}{3} = 3b^2 - 4$$

$$8. \frac{10m^2 + 5m}{5} = 2m^2 + m$$

$$9. \frac{16a^3 - 24a^2}{4a} = 4a^2 - 6a$$

$$10. \frac{9x^3 + 12x^2}{3x} = 3x^2 + 4x$$

$$11. \frac{12m^2 + 6m}{-3m} = -4m - 2$$

$$12. \frac{20b^3 - 25b^2}{-5b} = -4b^2 + 5b$$

Outcomes:

PR5 - Demonstrate an understanding of polynomials  
PR7 - Multiplying and dividing polynomials

## Challenge Yourself!!!

13.  $\frac{18a^4 + 12a^3 - 6a^2}{6a}$

$$3a^3 + 2a^2 - a$$

14.  $\frac{21x^5 - 28x^4 + 14x^3}{7x}$

$$3x^4 - 4x^3 + 2x^2$$

15.  $\frac{20x^4y^2 - 15x^2y^3 + 10x^3y}{5x^2y}$

$$4x^2y - 3y^2 + 2x$$

↪  $4x^2y + 2x - 3y^2$

16.  $\frac{16m^3n^3 + 24m^2n^2 - 40mn^3}{8mn^2}$

$$2m^2n + 3m - 5n$$

Review of Dividing Polynomials :



Outcomes:

PR5 - Demonstrate an understanding of polynomials  
PR7 - Multiplying and dividing polynomials