

Student Name: _____

Score: _____

Division of polynomials by Monomials

$$1. \frac{12x^4y^3z^2w}{2xy^2} \div 2xy^2 = \frac{6x^3yz^2w}{1}$$

$$2. \frac{(2a^3b^2 - 10ab^3c) \div 2ab^2}{2ab^2} = \frac{a^2 - 5bc}{1}$$

$$3. \frac{(xy^3z - 4y^2z + 6xyz - y^3z) \div yz}{yz} = \frac{xy^2 - 4y + 6x - y^2}{1}$$

$$4. \frac{12y^3z \div 6y^3}{6y^3} = \frac{2z}{1}$$

$$5. \frac{(6ab^4c - 3a^3bc^2 + 2a^3bc - 4ab^3c) \div abc}{abc} = \frac{6b^3 - 3a^2c + 2a^2 - 4b^2}{1}$$

Dividing Polynomials

Divide.

1) $(m^2 - 7m - 11) \div (m - 8)$

$$\begin{array}{r}
 m+1 \\
 m-8 \overline{) m^2 - 7m - 11} \\
 \underline{- m^2 - 8m} \\
 m - 11 \\
 \underline{- m - 8} \\
 -3
 \end{array}$$

$m+1 - \frac{3}{m-8}$

3) $(n^2 + 10n + 18) \div (n + 5)$

$$\begin{array}{r}
 n+5 \\
 n+5 \overline{) n^2 + 10n + 18} \\
 \underline{- n^2 + 5n} \\
 5n + 18 \\
 \underline{- 5n + 25} \\
 -7
 \end{array}$$

$n+5 - \frac{7}{n+5}$

Name _____

Date _____ Period _____

2) $(n^2 - n - 29) \div (n - 6)$

$$\begin{array}{r}
 n+5 \\
 n-6 \overline{) n^2 - n - 29} \\
 \underline{- n^2 + 6n} \\
 5n - 29 \\
 \underline{- 5n + 30} \\
 1
 \end{array}$$

$n+5 + \frac{1}{n-6}$

4) $(k^2 - 7k + 10) \div (k - 1)$

$$\begin{array}{r}
 k-6 \\
 k-1 \overline{) k^2 - 7k + 10} \\
 \underline{- k^2 + k} \\
 -6k + 10 \\
 \underline{- -6k + 6} \\
 4
 \end{array}$$

$k-6 + \frac{4}{k-1}$