

9.4 Algebra Worksheet
Section 12-5B
Polynomial Long Division

Name _____
Date _____
Assignment # _____

Divide. Write your answers as polynomials or as mixed expressions.

1.) $\frac{m^2 - m - 12}{m - 4}$

2.) $\frac{18e^2 + 27e + 10}{6e + 5}$

3.) $\frac{35t^2 - 51t + 16}{7t - 6}$

4.) $\frac{3x^2 - 2x^3 + x - 1}{x + 1}$

5.) $\frac{d^3 + 125}{d - 2}$

6.) $\frac{r^4 + 2r^2 - 1}{r^2 + 2r - 3}$

Given: The first polynomial is a factor of the second polynomial. Factor the second polynomial completely.

7.) $x - 3$; $x^3 - x^2 - 21x + 45$

8.) $w^2 - 1$; $w^5 - w^3 + 8w^2 - 8$