

# Dividing Polynomials with Long Division

Show work  
for credit!

Name:

Date:

Key

Divide.

1)  $(k^3 - 8k^2 + 16k - 5) \div (k - 5)$

$$k^2 - 3k + 1$$

2)  $(6p^3 - 7p^2 - 6p + 7) \div (p - 1)$

$$6p^2 - 1p - 7$$

3)  $(x^3 + 5x^2 + 11x + 28) \div (x + 4)$

$$x^2 + x + 7$$

4)  $(20r^3 + 66r^2 + 20r - 50) \div (4r + 10)$

$$5r^2 + 4r - 5$$

$$5) (3n^3 + 26n^2 + 56n + 35) \div (3n + 5)$$

$$n^2 + 7n + 7$$

$$6) (5m^3 + 38m^2 + 58m + 16) \div (5m + 8)$$

$$m^2 + 6m + 2$$

$$7) (-8x^4 - 42x^3 - 40x^2) \div (2x + 8)$$

$$-4x^3 - 5x^2$$

$$8) (9n^4 - 68n^3 + 31n^2 + 55n + 12) \div (9n + 4)$$

$$n^3 - 8n^2 + 7n + 3$$