

Dividing Polynomials

Date _____ Period ____ Points _____

Divide.

1) $(x^3 + 6x^2 - 15x + 4) \div (x - 2)$

2) $(x^3 + 13x^2 + 42x + 2) \div (x + 5)$

3) $(6r^3 + 28r^2 + 25r + 29) \div (r + 4)$

4) $(a^3 + 12a^2 + 30a + 97) \div (a + 10)$

$$5) (8n^3 - 15n^2 - 82n - 6) \div (8n + 1)$$

$$6) (2k^3 + 6k^2 - 4) \div (2k + 6)$$

State if the given binomial is a factor of the given polynomial.

$$7) (6n^3 - 25n^2 + 14n - 40) \div (n - 4)$$

$$8) (x^3 - 10x^2 + 8x + 64) \div (x - 8)$$

$$9) (p^3 - 10p^2) \div (p - 10)$$

$$10) (n^3 - 13n^2 + 52n - 61) \div (n - 7)$$