Name : _____

Dividing Polynomials

Sheet 3

Divide by long division method.

1) $(42s^6 - 35s^5 - 9s^4 + 26s^3 + 4s^2 + 9) \div (3s^3 + 2s^2 + 5)$

2) $(8r^5 + 11r^4 + 10r^3 + 5r^2 + 3) \div (r^2 + 5)$

3) $(45v^4 + 18v$

4) $(x^3 - 13x^2 +$

5) $(2p^2 + 7p -$

6) $(50k^3 + 10k^2 - 35k - 7) \div (5k^2 - 4k + 6)$

7) $(10c^5 + 11c^4 + 8c^2 - 2c + 9) \div (2c^4 - 3c^3 + 8c^2 - c + 3)$

Name : _____

Answer key

Dividing Polynomials

Sheet 3

Divide by long division method.

1) $(42s^6 - 35s^5 - 9s^4 + 26s^3 + 4s^2 + 9) \div (3s^3 + 2s^2 + 5)$

$14s^3 - 21s^2 + 11s - 22 + \frac{153s^2 - 55s + 119}{3s^3 + 2s^2 + 5}$

2) $(8r^5 + 11r^4 + 10r^3 + 5r^2 + 3) \div (r^2 + 5)$

$8r^3 + 11r^2 - 30$

3) $(45v^4 + 18v$

$9v + \frac{-5v^2 -}{5v^3 + 2v^2}$

4) $(x^3 - 13x^2 +$

$x - 6 + \frac{-16x -}{x^2 - 7x}$

5) $(2p^2 + 7p -$

$p + 7 + \frac{10}{2p - 7}$

6) $(50k^3 + 10k^2 - 35k - 7) \div (5k^2 - 4k + 6)$

$10k + 10 + \frac{-55k - 67}{5k^2 - 4k + 6}$

7) $(10c^5 + 11c^4 + 8c^2 - 2c + 9) \div (2c^4 - 3c^3 + 8c^2 - c + 3)$

$5c + 13 + \frac{-c^3 - 91c^2 - 4c - 30}{2c^4 - 3c^3 + 8c^2 - c + 3}$