



Name : Class :

Polynomials long division

Dividing the following polynomials and write down the result and the remainder when it applies.

1) $(-14c^3 + 3c^2 - 25c) : (2c - 4)$

2) $(18y^4 - 8y^3 + 16y^2 - 10y - 11) \div (y - 6)$

3) $(13x^4 - 7x^3 + 14x^2 - 9x - 10) \div (x - 4)$

4) $(11c^3 - 22c^2 + 8c - 67) \div (c - 7)$

5) $(8n^4 + 17n^3 - 20n - 48) \div (n + 7)$

6) $(-6a^4 + 10a^2 - 30) : (a^2 - 2a + 1)$

7) $(21a^5 - 13a^4 + 6a^3 - 22a^2 + 10a - 31) : (a^3 - 2a^2 - a + 5)$

ANSWER SHEET

Dividing the following polynomials and write down the result and the remainder when it applies.

- 1) $(-14c^3 + 3c^2 - 25c) : (2c - 4)$
$$-7c^2 - \frac{25}{2}c - \frac{75}{2}, R - 150$$

- 2) $(18y^4 - 8y^3 + 16y^2 - 10y - 11) \div (y - 6)$
$$18y^3 + 100y^2 + 616y + 3686, R + 22165$$

- 3) $(13x^4 - 7x^3 + 14x^2 - 9x - 10) \div (x - 4)$
$$13x^3 + 45x^2 + 194x + 767, R + 3094$$

- 4) $(11c^3 - 22c^2 + 8c - 67) \div (c - 7)$
$$11c^2 + 55c + 393, R + 2684$$

- 5) $(8n^4 + 17n^3 - 20n - 48) \div (n + 7)$
$$8n^3 - 56n^2 + 409n + 2883, R + 20229$$

- 6) $(-6a^4 + 10a^2 - 30) : (a^2 - 2a + 1)$
$$-6a^2 - 12a - 8 - \frac{4a + 26}{a^2 - 2a + 1}$$

- 7) $(21a^5 - 13a^4 + 6a^3 - 22a^2 + 10a - 31) : (a^3 - 2a^2 - a + 5)$
$$-6a^2 - 12a + 40 + \frac{92a - 70}{a^2 - 2a + 1}$$
