Remainder Theorem

Use remainder theorem to solve for the unknown variable.

1)
$$-x^2 + x + 2 \div -x - 1$$

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

Remainder: -28

Remainder: 0

2)
$$-2x^3 + 5x^2 - 4x + 1 \div 1 - x$$

7)
$$2x^2 + 5x + 3 \div x - 2$$

Remainder: -3

Remainder: 21

3)
$$2x^4 - 4x^3 - 8x^2 + 4x + 6 \div 2x - 1$$

8)
$$-x^2 - x \div x - 1$$

Remainder: 0

Remainder: -2

4)
$$-x^2 + 4x - 3 \div x - 2$$

9)
$$2x^3 + 4x^2 + 2x \div x - 2$$

Remainder: -8

Remainder: 36

5)
$$x^2 + 3x + 2 \div -x - 2$$

10)
$$-2x^4 + 8x^3 - 6x^2 - 8x + 8 \div -x - 1$$

Remainder: 6

Remainder: 0