

## Remainder Theorem

### A. Use remainder theorem to solve for the unknown variable.

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

6)  $(x^3 + 3x^2 - 4x - 12) \div (2x)$

Remainder:  $-10$

Remainder:  $-12$

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

7)  $(4x^3 - 6x^2 + 2x) \div (-x)$

Remainder:  $32$

Remainder:  $0$

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

8)  $(-2x^3 + 5x^2 - 4x + 1) \div (-x)$

Remainder:  $48$

Remainder:  $1$

4)  $(2x^2 - 2) \div (1 - x)$

9)  $(8x^3 + 8x^2 - 2x - 2) \div (2x)$

Remainder:  $96$

Remainder:  $-2$

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

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

Remainder:  $-8$

Remainder:  $-4$