

Name \_\_\_\_\_ Student No. \_\_\_\_ G \_\_\_\_ / \_\_\_\_ Date: \_\_\_\_\_ Score: \_\_\_\_\_  
Nickname: \_\_\_\_\_ Worksheet No.: \_\_\_\_\_

## Remainder Theorem

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

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

6)  $(-8x^4 - 32x^3 - 46x^2 - 28x - 6) \div (2x)$

Remainder: 120

Remainder: -6

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

7)  $(-2x^2 - 3x) \div (2x - 1)$

Remainder: 42

Remainder: -2

3)  $(4x^4 + 8x^3 - 13x^2 - 2x + 3) \div (1 - x)$

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

Remainder: 75

Remainder: 0

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

9)  $(1 - x^2) \div (2x + 1)$

Remainder: -3

Remainder:  $\frac{3}{4}$

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

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

Remainder: -36

Remainder: -6