

## Algebra I Worksheet #8 Unit 10 Selected Solutions

Perform the indicated operations. Express your answers in simplest form.

$$2. \quad 2x^3(3x^2 + x - 1) = 6x^5 + 2x^4 - 2x^3$$

$$6. \quad (2x - 5)(6x + 5) = 12x^2 - 20x - 25$$

$$10. \quad (x^3 - 2)(x^3 + 2) = x^6 - 4$$

$$14. \quad (4x + 1)^2 = 16x^2 + 8x + 1$$

$$18. \quad (x^2 + 7x - 3)(2x^2 + x + 6) = 2x^4 + 15x^3 + 7x^2 + 39x - 18$$
$$\begin{aligned} & 2x^4 + x^3 + 6x^2 \\ & + 14x^3 + 7x^2 + 42x \\ & - 6x^2 - 3x - 18 \end{aligned}$$

$$20. \quad (3x + 1)^3 = 27x^3 + 27x^2 + 9x + 1$$

$$(3x + 1)^2 = 9x^2 + 6x + 1$$

$$(3x + 1)^3 = (3x + 1)(9x^2 + 6x + 1) = 27x^3 + 18x^2 + 3x$$
$$+ 9x^2 + 6x + 1$$