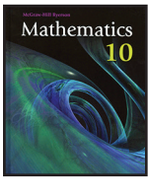
Check Up

1. Expand and simplify $(2x^2 + 2x)(x^2 - 3x + 1)$.

Compare your answers.

1. Expand and simplify $(2x^2 + 2x)(x^2 - 3x + 1)$.

$$\begin{aligned}(2x^2 + 2x)(x^2 - 3x + 1) &= (2x^2)(x^2) + (2x^2)(-3x) + (2x^2)(1) + (2x)(x^2) + (2x)(-3x) + (2x)(1) \\ &= 2x^4 - 6x^3 + 2x^2 + 2x^3 - 6x^2 + 2x \\ &= 2x^4 - 4x^3 - 4x^2 + 2x\end{aligned}$$



For further information about multiplying polynomials, see pp. 204 – 208 of *Mathematics 10*.

Multimedia

Additional videos related to multiplying polynomials have been provided.

In many ways, multiplying polynomials parallels the multiplication of multi-digit numbers. In the next lesson, you will begin to look at this process in reverse and explore how polynomials can be factored.