### Lesson 4 Practice Problems

1. Here are two expressions whose product is a new expression, .

* Andre says that any real number can go in either of the boxes and will be a polynomial. Is he correct? Explain your reasoning.

1. Lin divides the polynomial by 4 and gets . Is a polynomial? Explain your thinking.
2. What is the result when any 2 integers are multiplied?
   1. a positive integer
   2. a negative integer
   3. an integer
   4. an even number
3. Clare wants to make an open-top box by cutting out corners of a 30 inch by 25 inch piece of poster board and then folding up the sides. The volume in cubic inches of the open-top box is a function of the side length in inches of the square cutouts.
   1. Write an expression for .
   2. What is a reasonable domain for in this context?

* (From Unit 2, Lesson 1.)

1. Identify the degree, leading coefficient, and constant value of each of the following polynomials.

* (From Unit 2, Lesson 3.)

1. Which point is a relative minimum?

* 
  1. A
  2. B
  3. C
  4. D
* (From Unit 2, Lesson 3.)



© CC BY 2019 by Illustrative Mathematics®