

## Section 14-3: Multiplying Fractions

1. 060604a, P.I. A.A.12

What is the product of  $\frac{1}{3}x^2y$  and  $\frac{1}{6}xy^3$ ?

[A]  $\frac{1}{9}x^3y^4$

[B]  $\frac{1}{18}x^2y^3$

[C]  $\frac{1}{18}x^3y^4$

[D]  $\frac{1}{2}x^2y^3$

2. 080117b, P.I. A.A.18

If the length of a rectangular garden is

represented by  $\frac{x^2 + 2x}{x^2 + 2x - 15}$  and its width is

represented by  $\frac{2x - 6}{2x + 4}$ , which expression

represents the area of the garden?

[A]  $x$

[B]  $\frac{x}{x+5}$

[C]  $x + 5$

[D]  $\frac{x^2 + 2x}{2(x+5)}$

3. 060124b, P.I. A.A.18

A rectangular prism has a length of

$\frac{2x^2 + 2x - 24}{4x^2 + x}$ , a width of  $\frac{x^2 + x - 6}{x + 4}$ , and a

height of  $\frac{8x^2 + 2x}{x^2 - 9}$ . For all values of  $x$  for

which it is defined, express, in terms of  $x$ , the volume of the prism in simplest form.

[1] C

[2] B

[2]  $4(x - 2)$  or  $4x - 8$ , and appropriate work is shown.

[1] The problem is factored correctly but not reduced to simplest form.

or [1] Only two of the expressions are factored correctly, but an appropriate answer is found.

or [1]  $4(x - 2)$  or  $4x - 8$ , but no work is shown.

[0] Only the formula for volume is shown.

or [0] A zero response is completely incorrect, irrelevant, or incoherent or is a correct response that was obtained by an

[3] obviously incorrect procedure.