

**Answer on Question #77416 – Math – Algebra  
Question**

$f(x) = 3x + 6$ ,  $g(x) = 2x^2$ . Find  $(fg)(x)$ .

**Solution**

First, we rewrite  $(fg)(x)$  in a more convenient form:

$$(fg)(x) = f(x)g(x).$$

Now, it's very simply to find  $(fg)(x)$ :

$$(fg)(x) = (3x + 6)(2x^2) = 3x \cdot 2x^2 + 6 \cdot 2x^2 = 6x^3 + 12x^2.$$

**Answer:**

$$(fg)(x) = 6x^3 + 12x^2.$$