You may have thought that the notation $(f \cdot g)(x)$ meant that you should multiply the product of *f* and *g* by *x*, but it does not. The correct interpretation of this notation is:

$$(f \cdot g)(x) = f(x) \cdot g(x) = \left(-2x^2\right)\left(7x^2 - 2x - 5\right)$$

Use the distributive property. The correct answer is $-14x^4 + 4x^3 + 10x^2$.