

Incorrect. Factor the numerators and denominators.

$$\frac{2}{3x^2} \cdot \frac{12x^3}{14} = \frac{2}{3 \cdot x^2} \cdot \frac{2 \cdot 2 \cdot 3 \cdot x^2 \cdot x}{2 \cdot 7}$$

Regroup so that the common factors on top and bottom are in one fraction. This can be reduced to 1. Multiply the simplified expressions.