Use the properties of exponents to simplify $\dfrac{(12 \times 10^{14})(18 \times 10^{-11})}{(3 \times 10^{-7})(4 \times 10^{-12})}$.

$$\frac{(12 \times 10^{14})(18 \times 10^{-11})}{(3 \times 10^{-7})(4 \times 10^{-12})} = \frac{(12)(18) \times 10^{3}}{(3)(4) \times 10^{-17}}$$

$$= 18 \times 10^{20}$$

$$= 1.8 \times 10^{21} \qquad (Scientific\ Notation)$$