

Regroup: $\left(\frac{2.964}{4.56}\right) \left(\frac{10^{11}}{10^{-2}}\right)$

Divide the numbers: $(0.65) \left(\frac{10^{11}}{10^{-2}}\right)$

Use the quotient rule: $0.65 \times 10^{11-(-2)} = 0.65 \times 10^{13}$

Convert 0.65 into scientific notation: $(6.5 \times 10^{-1}) \times 10^{13}$

Regroup and use the product rule: $6.5 \times (10^{-1} \times 10^{13}) = 6.5 \times 10^{-1+13} = 6.5 \times 10^{12}$