

Objective #17

WP: Scientific notation (Page 2 of 2)

3. The force of attraction in Newtons, N, between two charges is given by

$$F = (5.626 \times 10^8) \cdot q_1 \cdot q_2. \text{ If } q_1 = 6.0 \times 10^{-6} \text{ and } q_2 = 1.0 \times 10^{-6}, \text{ calculate the force, } F.$$

[A] 9.3767×10^{10} N

[B] 9.3767×10^7 N

[C] 3.3756×10^{-3} N

[D] 3.3756×10^{-2} N

Substitute

$$F = (5.626 \times 10^8) \cdot (6.0 \times 10^{-6}) (1.0 \times 10^{-6})$$

Rewrite

$$5.626 \times 6.0 \times 1.0 \times 10^8 \times 10^{-6} \times 10^{-6}$$

33.756×10^{-4} scientific notation? No!

$$= 3.3756 \times 10^{-3} \text{ N}$$

4. Last year a large trucking company delivered about 0.7 million tons of goods at an average value of \$17,500 per ton. What was the total value of goods delivered? Express your answer in scientific notation.

see #2