



Name _____ Class _____ Date _____

1 What is the approximate **electrostatic force** between two protons separated by a distance of 1.0×10^{-6} meter?

- A 2.3×10^{-16} N and repulsive
- B 2.3×10^{-16} N and attractive
- C 9.0×10^{21} N and repulsive
- D 9.0×10^{21} N and attractive

2 What is the **total electrical energy** used by a **1500-watt** hair dryer operating for **6.0 minutes**?

- A 4.2 J
- B 250 J
- C 9.0×10^3 J
- D 5.4×10^5 J



NEW PATH LEARNING

3 Moving 2.5×10^{-6} coulomb of **charge** from point A to point B in an electric field requires 6.3×10^{-4} joule of **work**. The **potential difference** between points A

4 When a **neutral metal sphere** is charged by contact with a **positively charged glass rod**, the **sphere**



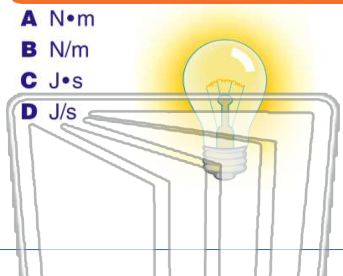
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PREVIEW

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7

- A N•m
- B N/m
- C J•s
- D J/s



distance between the charges is **doubled**, the **electrostatic force** between the charges will become

- A F/4
- B 2F
- C F/2
- D 4F

NEW PATH LEARNING

9 If 4.8×10^{-17} joule of work is required to move an electron between two points in an electric field, what is the **electric potential difference** between these points?

- A 1.6×10^{-19} V
- B 4.8×10^{-17} V
- C 3.0×10^2 V
- D 4.8×10^2 V

10 An object with a net charge of 4.80×10^{-6} coulomb experiences an **electrostatic force** having a magnitude of 6.00×10^{-2} newton when placed near a **negatively** charged metal sphere. What is the **electric field strength** at this location?

- A 1.25×10^4 N/C directed away from the sphere
- B 1.25×10^4 N/C directed toward the sphere
- C 2.88×10^{-8} N/C directed away from the sphere
- D 2.88×10^{-8} N/C directed toward the sphere



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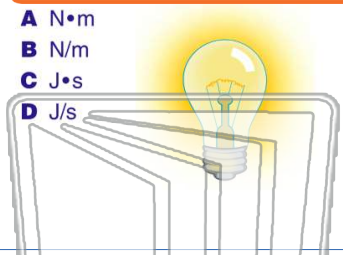
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