

NAME:

DATE:

Period:

Electricity Exam Review

1. What is a volt?
2. What is a point charge?
3. What is Ohms Law?
4. What is the charge of an electron?
5. What aspect of electricity is harmful to living tissue?
6. Back in the olden days when a Christmas lightbulb went out the whole stand went out. With your knowledge of circuits, why might this be?
8. By the way, this no longer occurs. Inside each Christmas light is a small wire called a junt. When the bulb burns out, electrons can flow through it, allowing all the lights to stay on. This is not actually a question. I just wanted you to know what a junt was.
9. Two point charges are places 4cm from each other. Point A has a charge of -4.50nC, Point B has a charge of +5.20nC. What is the F_{electric} being imposed on each charge?
10. An unknown distance separates two charges. Charge A is 8.9nC and charge B is 6.3nC. If the F_{electric} is 5046N, what is the distance?

NAME:

DATE:

Period:

11. Four point charges of $-1.3\mu\text{C}$, $+3.5\mu\text{C}$, $+2.0\mu\text{C}$, $-1.4\mu\text{C}$ are placed in an 10cm equilateral Square. Draw this and calculate the force of each electron on the other.

12. If a point charge has an electric field strength of 3500N/C and an electric force of 2500N , what is its charge?

13. If a point charge has 5C and a force of 300N , what is its electric field strength?

14. Solve for total R

15. Solve for total R

16. An ipod has a 3.5v battery inside it. If the ipod uses 2W of power, what is the resistance of all the components of the ipod?

17. The iphone wall charger uses $.00045\text{W}$ of power. If you had the charger plugged in for a whole year at $\$0.12$ per kWh, how much would it cost?