

Responses

Exam 1 (1260) (17811650) -- [View](#) | [Edit](#) | [Schedule](#) | [Scores](#)
[<<Prev \(Brooks, Alli\)](#)

Other Assignments

Other Students

[Next \(Brown, Tyler\)>>](#)

[Grant Extensions/Submissions](#) | [Rescore](#) | [Override](#) | [Log Info](#) | [Student Summary](#) | [Submit Saved Work](#) ?

Brown, Treveon : browntr19@students.ecu.edu

Question

QID

Point Value

Points Earned

<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>
1245711	1425883	1425922	1245698	1425872	1425923	1246085	1425878	1425895	1245702
1	4	1	2	1	1	1	1	3	1
1	0	1	1	1	1	1	0	3	1

Total

16

10

1. 1/1 points | [Previous Answers](#) ColFunPhys1 17.P.006. [1245711]

Find the force on a negative charge that is placed midway between two equal positive charges. All charges have the same magnitude.

2. 0/4 points | [Previous Answers](#) ColFunPhys1 18.P.001. [1425883]

The potential at point P in an electric field is 543 V. (Let's denote the electric potential energy as U_E .)

(a) What is the electrical potential energy of a proton placed at P, in eV and in joules?

$U_E =$
 $U_E =$

(b) What is the electrical potential energy of an electron at P, in eV and in joules?

$U_E =$
 $U_E =$

3. 1/1 points | [Previous Answers](#) ColFunPhys1 19.P.003. [1425922]

A copper wire carries a current of 24.8 A. How many electrons pass a point in the wire in 7 hour?

3.906e24



3.91e+24

4. 1/2 points | [Previous Answers](#) ColFunPhys1 17.P.008. [1245698]

Three charges, $q_1 = +1.88 \times 10^{-9}$ C, $q_2 = -3.06 \times 10^{-9}$ C, and $q_3 = +1.07 \times 10^{-9}$ C, are located on the x-axis at $x_1 = 0$, $x_2 = 10.0$ cm, and $x_3 = 20.0$ cm. Find the resultant force on q_3 .

magnitude

3.9627e-6 N



2.49e-06 N

direction

-x direction



-x direction

5. 1/1 points | [Previous Answers](#) ColFunPhys1 18.P.002. [1425872]

A proton is initially at rest at a point where the potential is 466 V. Some time later the proton is at a point where the potential is 199 V. If no force other than the electrostatic force acts on the proton, what is its final kinetic energy?

267 eV



4.27e-17 J

6. 1/1 points | [Previous Answers](#) ColFunPhys1 19.P.004. [1425923]

In what appears to be a single lightning bolt, there are typically several distinct strokes over the same path, each lasting on the order of 10^{-4} s, with an interval of about 0.05 s between them. The duration of the several strokes is about 0.20 s. Thus, although the peak current may reach a maximum of 20,000 A, the average current over the 0.20 s is much less—typically about 120 A upward. Find the charge transferred to one point on the earth's surface during a typical 0.20 s discharge.

-24 C



-24 C

7. 1/1 points | [Previous Answers](#) ColFunPhys1 17.P.013. [1246085]

A charge q_1 on the y-axis produces a field of magnitude 7 N/C at the origin, and a charge q_2 on the x-axis produces a field of magnitude 10 N/C at the origin. What is the magnitude of the total field at the origin?

12.20655 N/C

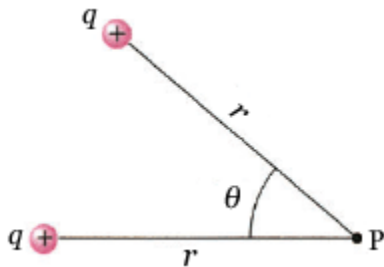


12.2 N/C

8. 0/1 points | [Previous Answers](#) ColFunPhys1 18.P.006. [1425878]

Two identical charges $q = (1/9.0) \times 10^{-9} \text{ C}$ are shown in the figure below. Find the potential at P. (Take $r = 1.77 \text{ m}$ and $\theta = 42^\circ$.)

0.4744 V ✖  1.13 V



9. 3/3 points | [Previous Answers](#) ColFunPhys1 19.P.006. [1425895]

There is a potential difference of 1.1 V between the ends of a 20 cm long graphite rod that has a cross-sectional area of 1.2 mm^2 . The resistivity of graphite is $7.5 \times 10^{-6} \Omega\text{-m}$.

(a) Find the resistance of the rod.

1.25 ohms ✔  1.25 ohms

(b) Find the current.

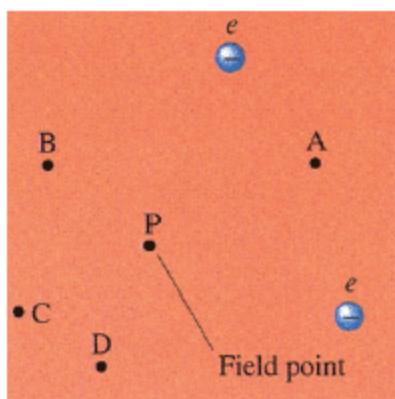
0.88 A ✔  0.88 A

(c) Find the electric field inside the rod.

5.5 N/C ✔  5.5 V/m

10.1/1 points | [Previous Answers](#) ColFunPhys1 17.P.016. [1245702]

In the figure shown below, two electrons are the same distance from a field point P. At which of the points A, B, C, or D could a proton be placed so that the electric field at P is zero?



☒ A

☐ B

☐ C

☐ D

✓