Quiz Summary

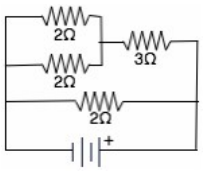
Section Filter | Student Analysis | Item Analysis

Average Score	High Score	Low Score	Standard Deviation	Average Time
51%	90%	0%	2.18	09:23

Question Breakdown

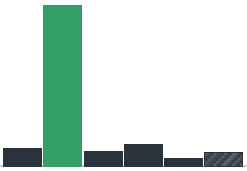
Attempts: 135 out of 140

What is the total resistance of the circuit below?



78% **Correct answer**

78% of your students correctly answered this question.



+0.24 **Discrimination Index**

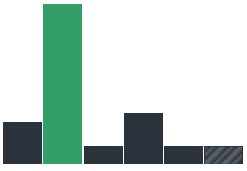
6%	1/3 ohm 8 respondents	78%	4/3 ohm 109 respondents
4%	2 ohm 6 respondents	8%	6 ohm 11 respondents
1%	I don't know 1 respondents	4%	No Answer 5 respondents

Attempts: 134 out of 140

A really strong French chef throws a 1 meter long baguette at you for insulting his croissants. You dodge the loaf, which is quite a feat because it is moving at four-fifths the speed of light. How long does the loaf look to you as it whizzes by your head?

58% **Correct answer**

58% of your students correctly answered this question.



+0.52 **Discrimination Index**

13% 1/5 m
18 respondents

58% 3/5 m
81 respondents

4% 1 m
6 respondents

16% 5/4 m
23 respondents

4% I don't know.
6 respondents

4% No Answer
6 respondents

Attempts: 135 out of 140

For an electromagnetic wave moving through vacuum, what is the ratio of the magnitude of the electric field to the magnetic field equal to?

a) ϵ_0

b) $4\pi\epsilon_0$

c) c

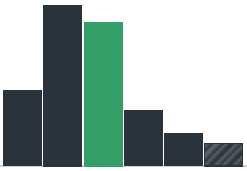
d) c^2

e) I don't know.

30%

Correct answer

30% of your students correctly answered this question.



+0.43 Discrimination Index

15% a)
21 respondents

35% b)
49 respondents

30% c)
42 respondents

11% d)
15 respondents

6% e)
8 respondents

4% No Answer
5 respondents

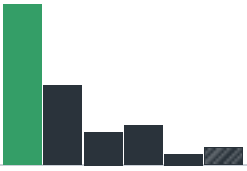
Attempts: 135 out of 140

In which direction does the proton initially deflect as it passes into the magnetic field in the diagram below? The magnetic field is directed into the page.

52%

Correct answer

52% of your students correctly answered this question.



+0.48 Discrimination Index

52% up
73 respondents

24% down
33 respondents

9% into the page.
12 respondents

11% out of the page.
15 respondents

1% I don't know.
2 respondents

4% No Answer
5 respondents

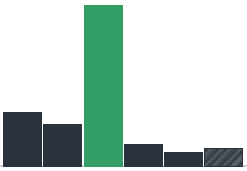
Attempts: 134 out of 140

Which of the following can be completely be explained without quantum physics?

57%

Correct answer

57% of your students correctly answered this question.



+0.32 Discrimination Index

17% The Balmer series.
24 respondents

13% The work function of the photoelectric effect.
18 respondents

57% The interfenece patterns of light.
80 respondents

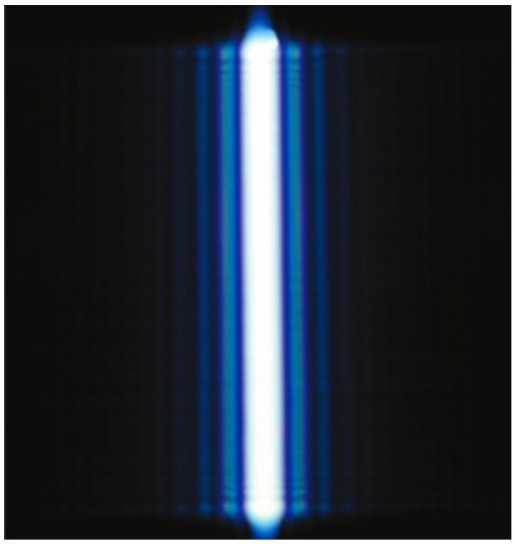
6% The interfenece patterns of electrons.
8 respondents

3% I don't know.
4 respondents

4% No Answer
6 respondents

Attempts: 134 out of 140

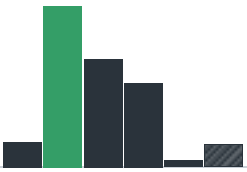
This image was most likely created by passing one wavelength of light through



43%

Correct answer

43% of your students correctly answered this question.



+0.32 Discrimination Index

5% a single aperture.
7 respondents

43% a single slit.
60 respondents

27% a double slit.
38 respondents

21% a diffraction grating.
29 respondents

0% I don't know.

4% No Answer
6 respondents

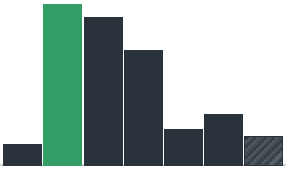
Attempts: 134 out of 140

A stream of protons, electrons and oxygen atoms pass at the same speed through a 1 micrometer-wide slit. Which stream will produce the widest diffraction pattern on a detector behind the slit?

31%

Correct answer

31% of your students correctly answered this question.

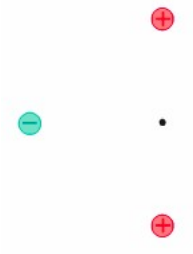


+0.33 Discrimination Index

- 3% The protons. 4 respondents
- 31% The electrons. 43 respondents
- 27% The oxygen atoms. 38 respondents
- 21% All three will be the same. 29 respondents
- 6% None of them will produce a diffraction pattern. 8 respondents
- 9% I don't know. 12 respondents
- 4% No Answer 6 respondents

Attempts: 133 out of 140

This image shows a point (the dot) among two equal positive charges and a negative charge. At the dot, the electric field points



61%

Correct answer

61% of your students correctly answered this question.

+0.42 Discrimination Index

- 61% left 85 respondents
- 17% right 24 respondents
- 4% up 5 respondents
- 2% down 3 respondents
- 9% nowhere. The electric field is zero. 12 respondents
- 3% I don't know. 4 respondents
- 5% No Answer 7 respondents

Attempts: 132 out of 140

The image shows a blob shaped closed surface, with total area A, and has several charges scattered randomly throughout the volume it encloses. In total there are 6 free electrons and 17 free protons within the blob. If q represents the fundamental charge of a proton and ϵ_0 is the permittivity of free space, then what is the electric flux through the surface?

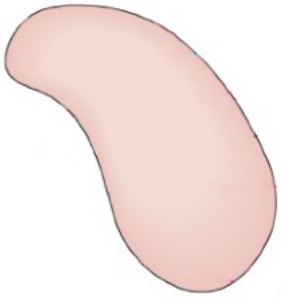
a) $23\frac{q^2}{A}$

b) $11\frac{q}{\epsilon_0}$

c) $-6qA$

d) $\epsilon_0 A$

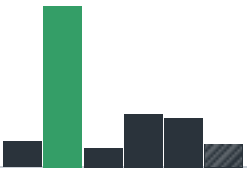
e) I don't know



54%

Correct answer

54% of your students correctly answered this question.



+0.63 Discrimination Index

6% a)
9 respondents

54% b)
75 respondents

4% c)
6 respondents

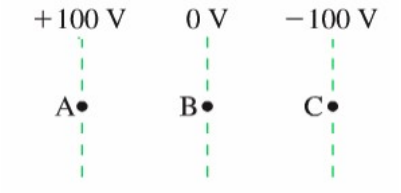
16% d)
22 respondents

14% e)
20 respondents

6% No Answer
8 respondents

Attempts: 132 out of 140

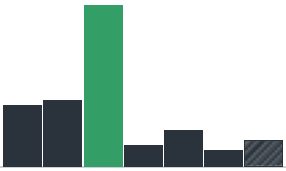
An electron is released from rest at point B, where the electric potential is 0V. Afterward, the electron will



46%

Correct answer

46% of your students correctly answered this question.



+0.41 Discrimination Index

16% remain at rest at B.
22 respondents

17% move toward A at constant speed.
24 respondents

46% move toward A at an increasing speed.
64 respondents

4% move toward C at constant speed.
6 respondents

9% move toward C at an increasing speed.
12 respondents

3% I don't know.
4 respondents

6% No Answer
8 respondents