Quiz Summary

Section Filter | Student Analysis

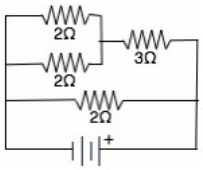
Item Analysis (https://usu.instructure.com/files/58673284/download?download_frd=1&verifier=hJTwIN3rFNo1SQiILnusPL8RwAIKX4REd132mQSm)

Average Score	High Score	Low Score	Standard Deviation	Average Time
51%	90%	0%	2.10	08:03

Question Breakdown

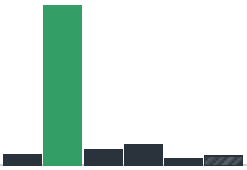
Attempts: 158 out of 161

What is the total resistance of the circuit below?



83% **Correct answer**

83% of your students correctly answered this question.



+0.38 Discrimination Index

2%	1/3 ohm 4 respondents	83%	4/3 ohm 133 respondents
5%	2 ohm 8 respondents	7%	6 ohm 12 respondents
1%	I don't know 1 respondents	2%	No Answer 3 respondents

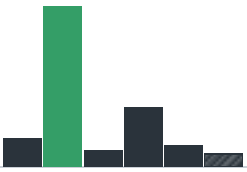
Attempts: 157 out of 161

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?

60%

Correct answer

60% of your students correctly answered this question.



+0.50 Discrimination Index

8% 1/5 m
13 respondents

60% 3/5 m
97 respondents

4% 1 m
6 respondents

20% 5/4 m
32 respondents

6% I don't know.
9 respondents

2% No Answer
4 respondents

Attempts: 157 out of 161

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

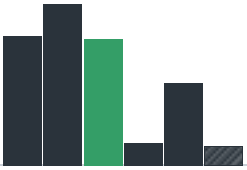
d) c^2

e) I don't know.

24%

Correct answer

24% of your students correctly answered this question.



+0.38 Discrimination Index

24% a)
39 respondents

32% b)
51 respondents

24% c)
38 respondents

3% d)
5 respondents

15% e)
24 respondents

2% No Answer
4 respondents

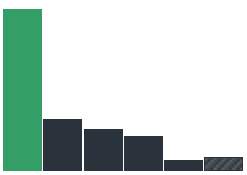
Attempts: 157 out of 161

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.

58%

Correct answer

58% of your students correctly answered this question.



+0.47 Discrimination Index

58% up
93 respondents

16% down
26 respondents

12% into the page.
20 respondents

10% out of the page.
16 respondents

1% I don't know.
2 respondents

2% No Answer
4 respondents

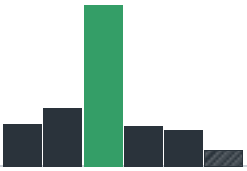
Attempts: 156 out of 161

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

50%

Correct answer

50% of your students correctly answered this question.



+0.34 Discrimination Index

11% The Balmer series.
18 respondents

16% The work function of the photoelectric effect.
26 respondents

50% The interfenece patterns of light.
80 respondents

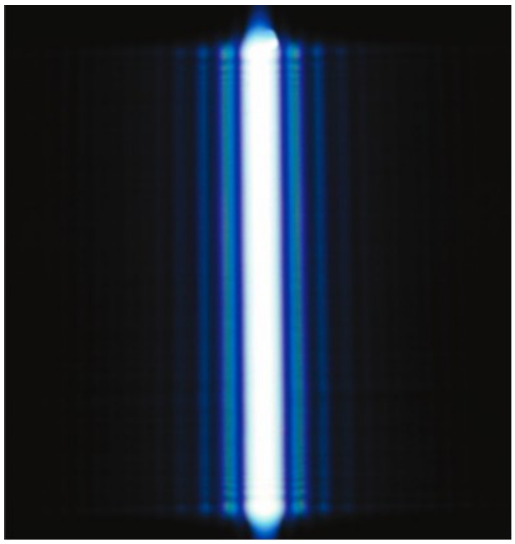
11% The interfenece patterns of electrons.
17 respondents

9% I don't know.
15 respondents

3% No Answer
5 respondents

Attempts: 157 out of 161

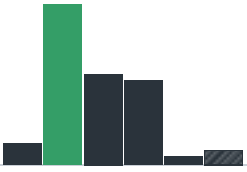
This image was most likely created by passing one wavelength of light through



46%

Correct answer

46% of your students correctly answered this question.



+0.46 Discrimination Index

4% a single aperture.
7 respondents

46% a single slit.
74 respondents

24% a double slit.
39 respondents

22% a diffraction grating.
36 respondents

1% I don't know.
1 respondents

2% No Answer
4 respondents

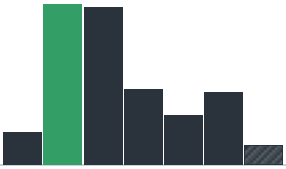
Attempts: 157 out of 161

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?

30%

Correct answer

30% of your students correctly answered this question.



+0.26 Discrimination Index

5% The protons.
8 respondents

30% The electrons.
49 respondents

29% The oxygen atoms.
46 respondents

13% All three will be the same.
21 respondents

8% None of them will produce a diffraction pattern.
13 respondents

12% I don't know.
20 respondents

2% No Answer
4 respondents

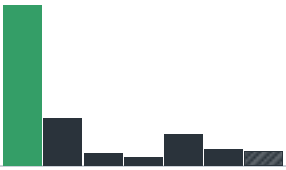
Attempts: 156 out of 161

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

64%

Correct answer

64% of your students correctly answered this question.



+0.52 Discrimination Index

64% left
103 respondents

16% right
26 respondents

2% up
4 respondents

1% down
1 respondents

10% nowhere. The electric field is zero.
16 respondents

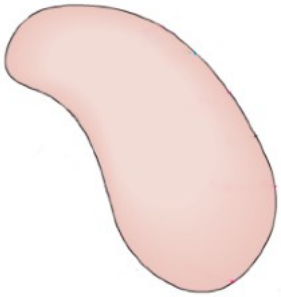
4% I don't know.
6 respondents

3% No Answer
5 respondents

Attempts: 153 out of 161

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?

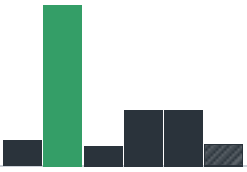
a) $23\frac{q^2}{A}$
b) $11\frac{q}{\epsilon_0}$
c) $-6qA$
d) $\epsilon_0 A$
e) I don't know



52%

Correct answer

52% of your students correctly answered this question.



+0.46 Discrimination Index

6% a) 10 respondents

52% b) 84 respondents

4% c) 7 respondents

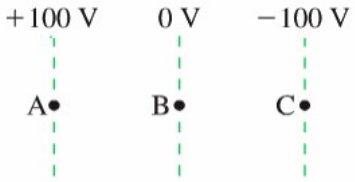
16% d) 26 respondents

16% e) 26 respondents

5% No Answer 8 respondents

Attempts: 153 out of 161

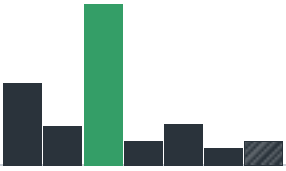
An electron is released from rest at point B, where the electric potential is 0V. Afterward, the electron will



46%

Correct answer

46% of your students correctly answered this question.



+0.43 Discrimination Index

22% remain at rest at B. 35 respondents

9% move toward A at constant speed. 15 respondents

46% move toward A at an increasing speed. 74 respondents

5% move toward C at constant speed. 8 respondents

10% move toward C at an increasing speed. 16 respondents

3% I don't know. 5 respondents

5% No Answer 8 respondents