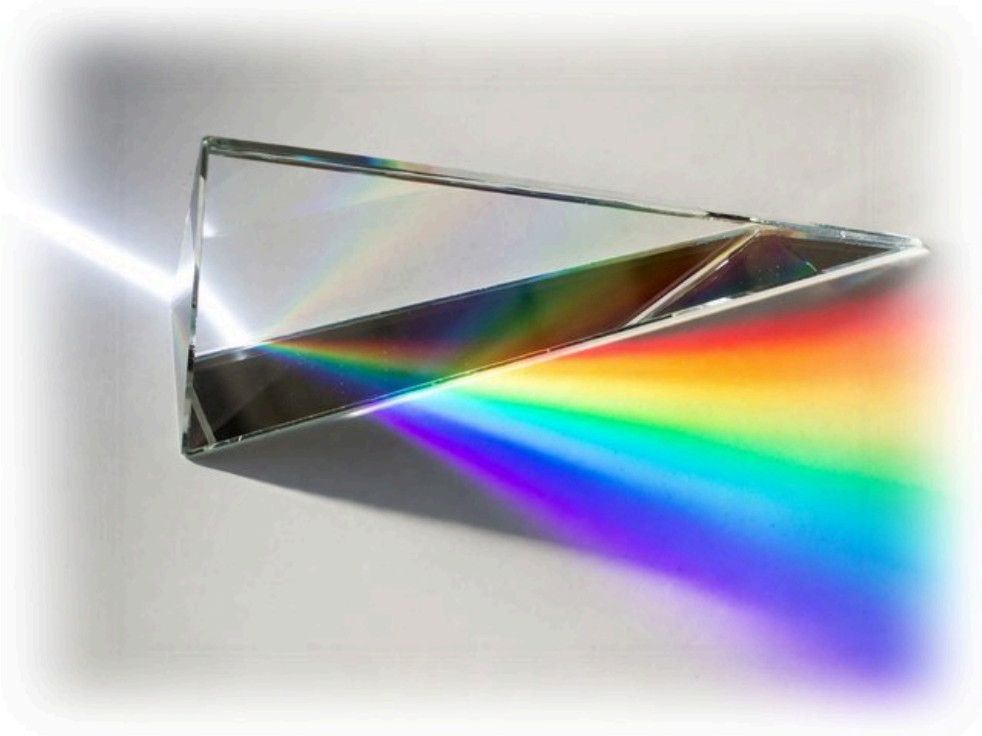
MASSACHUSETTS PHYSICS · UNIT 4 · 5 QUESTIONS

Light and Modern Physics — Practice Test

This practice test was made by AI and there may be mistakes. If a question or answer looks wrong, use the Flag a mistake button to let Brett know so he can fix it.

1 **A triangular glass prism splits white light into a rainbow spectrum. Light travels from glass into air and speeds up. The ray bends**



A toward the normal

B away from the normal

C not at all

D back on itself

Understand It with Pulse

Flag a mistake

2

A flat mirror forms an image that is

A real and inverted

B real and upright

C virtual and inverted

D virtual and upright

Understand It with Pulse | Flag a mistake

3

In the photoelectric effect, increasing the light frequency above threshold increases the

A number of electrons only

B work function

C wavelength

D maximum kinetic energy of electrons

Understand It with Pulse | Flag a mistake

4 **The half life of a sample is 5 years. After 15 years, the fraction remaining is**

- A one half
- B one fourth
- C one eighth
- D one sixteenth

Understand It with Pulse | Flag a mistake

5 **A sample starts with 100 g of a radioactive isotope. After three half lives, the mass remaining is**

- A 50 g
- B 25 g
- C 12.5 g
- D 33.3 g

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ANSWER KEY

1. B
2. D
3. D
4. C
5. C

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