

HarvardX: CalcAPL1x Calculus Applied!

Help

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1.1.2 Exploratory Quiz: What is an X-ray?

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Question 1: Think About It...

1/1 point (graded)

Based on your experience, intuition or knowledge, what is an x-ray?

an electromagnetic wave like light but with higher frequency



Thank you for your response.

Explanation

This is a reflective question to get you thinking. You will learn more about x-rays as you progress through this section.

Submit

1 Answers are displayed within the problem

Question 2: Think About It...

1/1 point (graded)

What do you think are some potential issues with an x-ray? What factors might make an x-ray difficult to read (that is, what might make it difficult to identify unusual features)?

superimposing different parts of a body



Thank you for your response.

Explanation

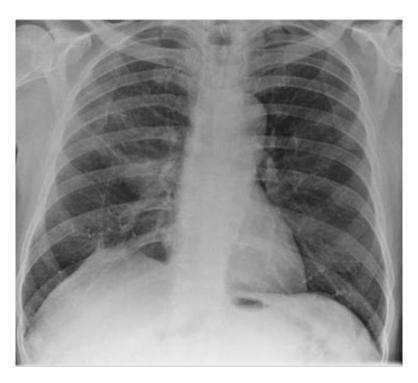
This is discussed in the video that follows.

Submit

1 Answers are displayed within the problem

Question 3

1/1 point (graded) Here is the x-ray we saw of the patient's chest:



View Larger Image **Image Description**

Choose the answer which you think best completes the sentence:

The x-ray of the patient's chest . . .

- is an image of a 2-dimensional vertical slice of the chest (top to bottom through the chest).
- is an image of a 2-dimensional horizontal slice of the chest (front to back through the chest).
- is all the 3-dimensional vertical slices of the chest compressed into a 2- dimensional image.
- is all the 3-dimensional horizontal slices of the chest compressed into a 2-dimensional image.
- is a 3-dimensional image of the chest.

Image Source: "The calcified lung nodule: What does it mean?", Fig. 1, by Khan, et.al. Annals of Thoracic Medicine - Vol 5, Issue 2, April-June 2010

ncbi.nlm.nih.gov/pmc/articles/PMC2883201/

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Explanation

The image is not a single vertical slice of the body because we can make out features which exist in different planes of the body, for example, the front and back ribs.

The image is showing the body as if we were standing face to face with the patient, so it is not a horizontal slice of the body. The image is two-dimensional so it cannot be a 3-dimensional image.

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1 Answers are displayed within the problem

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