Topic: Interactions

1. You are give the activity of a radioactive source; which is, 800 mCi (millicuries) and the half life of the source; that is, 6 hours. What will the activity of the source be in 12 hours?

- A. 800 millicuries
- B. 600 millicuries
- C. 300 millicuries
- D. 200 millicuries

Answer:

D. In one half life a source's activity will decrease to one half. In two half lives a sources activity will decrease to one quarter. Therefore, in two half live a 800 millicuries source will decrease to 200 millicuries.

Topic: Delivery

2. The half life of lodine 125; I125 is approximately _____?

- A. 120 days
- B. 90 days
- C. 60 days
- D. 50 days

Answer:

C. The half life (the time it would take for a radioactive material to decline to half of its activity) of ; I125 is approximately 60 days.

Topic: Physics

3. The frequency of a wave is measured in hertz (Hz). The frequency can be defined as: ?

- A. The height of a given wave
- B. The distance a given wave travels
- C. The number of waves cycles per second
- D. The speed of a photon

Answer:

C. Hertz (Hz) is a characteristic of a wave representing the number of wave cycles per second. One hertz is one cycle per second.