

Problem #1. (2 points)

What is the slope of the line that passes through the points $(-2, 1)$ and $(2, 3)$.

- (a) 0.2 (b) 0.5 (c) 2 (d) 5 (e) none of these

Problem #2. (3 points)

A 50mg dose of quinine is given to a patient to prevent malaria. Quinine leaves the body at a rate of 6% per hour. How much quinine is in the body after one day (24 hrs).

- (a) $\approx 50mg$ (b) $\approx 24.8mg$ (c) $\approx 11.3mg$ (d) $\approx 2.7mg$ (e) $\approx 0mg$

Problem #3. (5 points)

A radioactive substance has a half-life of 6 years. If 400mg are present initially:

- (a) how much will remain at the end of 15 years?

- (b) how long will it be until only 20mg remain?