

1. The number of fish in a lake is decreasing 8% a year due to overfishing. There were 25,000 fish in the lake in 2006.

a) Find the number of fish in the lake in 2000.

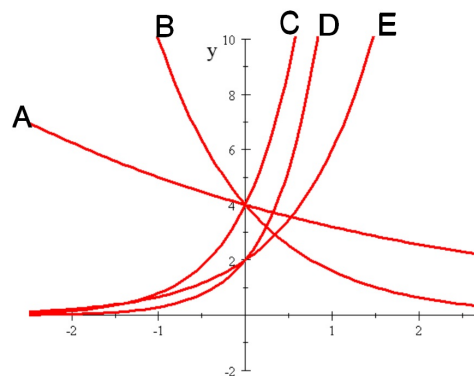
b) How many fish will there be in 2020?

2. A certain medicine has a half life of 40 minutes. You took a 250mg dose at 7:00 am.

Find the amount of medicine remaining in your system at 1:30pm. Round to the nearest hundredth of a mg.

3. Match each equation to it's graph.

☐ $y = 2(7)^x$ ☐ $y = 4(0.8)^x$ ☐ $y = 2(3)^x$
☐ $y = 4(0.4)^x$ ☐ $y = 4(5^x)$



4. The population of a city has been increasing 6.7% each year. The population in 1998 was 12,500.

In how many years will the population first exceed 250,000? Round to the nearest hundredth.