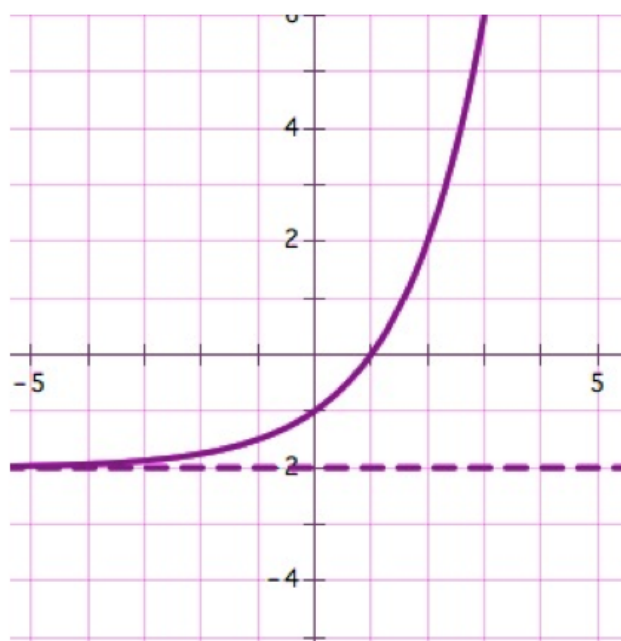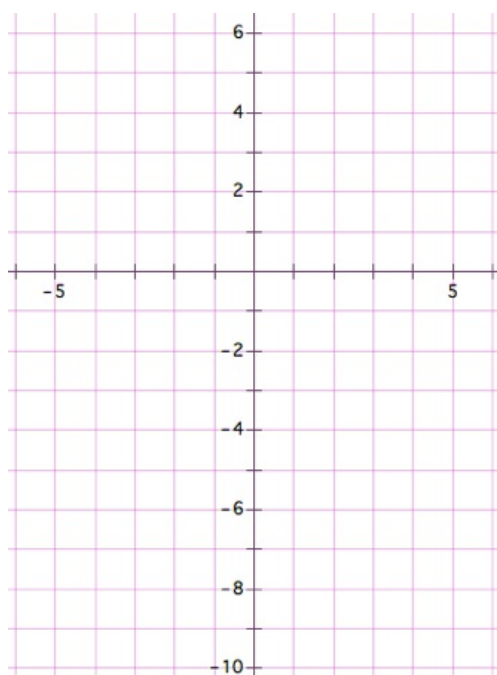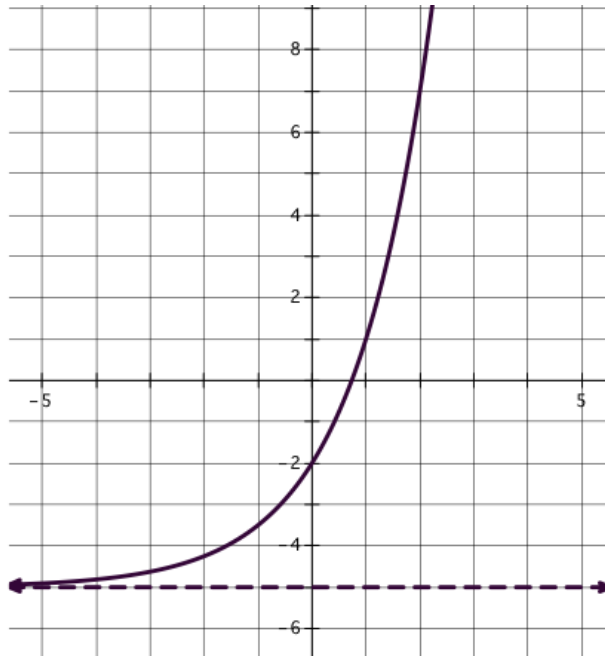Graph $f(x) = -2(3)^x + 5$

Compound Interest Formula:

$$A = P\left(1 + \frac{r}{n}\right)^{nt}$$

A = account balance   P = principal amount   r = interest rate (decimal form)

n = # of times compounded per year   t = time (in years)

Example 1: How much money will there be in an account at the end of 5 years if $1000 is deposited at 5.2% compounded semimonthly?

Example 2: Steve invests his birthday money, $300, in an account that receives 5% interest compounded quarterly. He decides to buy something 20 years later with his birthday money. How much money does he have to spend?