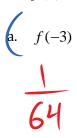
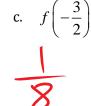
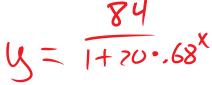
1. Given $f(x) = 4^x$, evaluate:



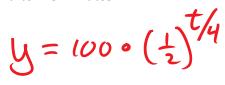


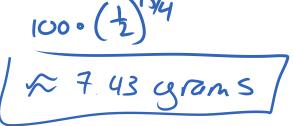


- 2
- 2. Write the equation of a logistic function that has a limit to growth of 84, an initial value of 4 and goes through the point (5, 21).



3. The half-life of a substance is 4 minutes. The original mass is 100 grams. How much of the substance remains after 15 minutes?





4. Write the equation of a logistic function that has a limit to growth of 84, an initial value of 4 and goes through the point (5, 21).

$$y = \frac{34}{1+20.68^{\times}}$$

5. Write the equation of an exponential function that goes through (0,2) and (3,12). (Round b-value to nearest hundredths.)

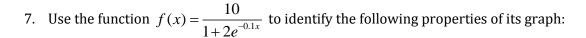
$$y = 2 \cdot b^{2}$$
 $y = 2 \cdot 1.82^{2}$

6. Evaluate:

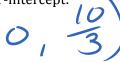








a. Y-intercept:



b. Asymptotes:



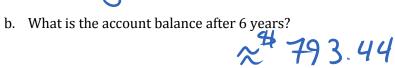
c. Y-coordinate of symmetry:



8. You deposit \$500 in an account that pays 8% annual interest compounded yearly.

a. Write an equation representing the total amount of money in your account in years.





c. How much would the \$500 be worth after 35 years?



9. Evaluate the following without a calculator:

a.
$$\log_{\frac{1}{2}} 8$$
 $\frac{1}{2} \times = 8$
 $2^{-X} = 2^{3}$

b.
$$\log \frac{3}{\sqrt{1000}}$$
 $10^{\times} = 10^{3/2}$
 $\times = 3/2$



- 10. Evaluate the following with a calculator:
 - a. log217



- c. ln(0.345)

