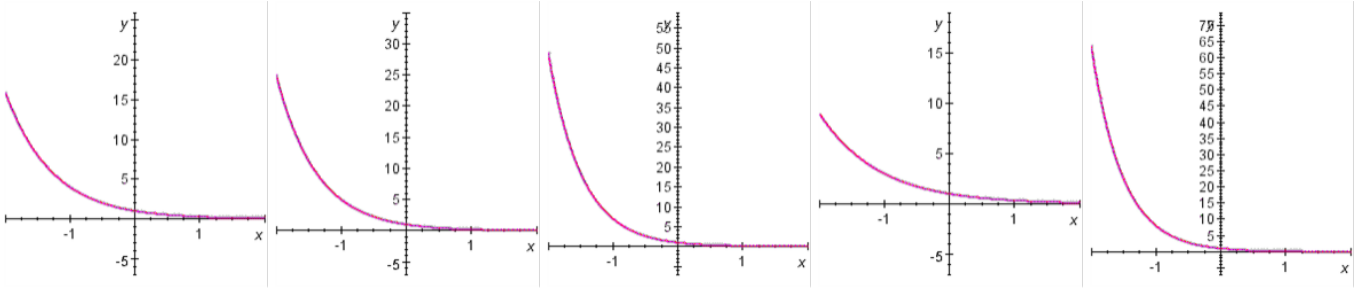
Your Name:

ID #:

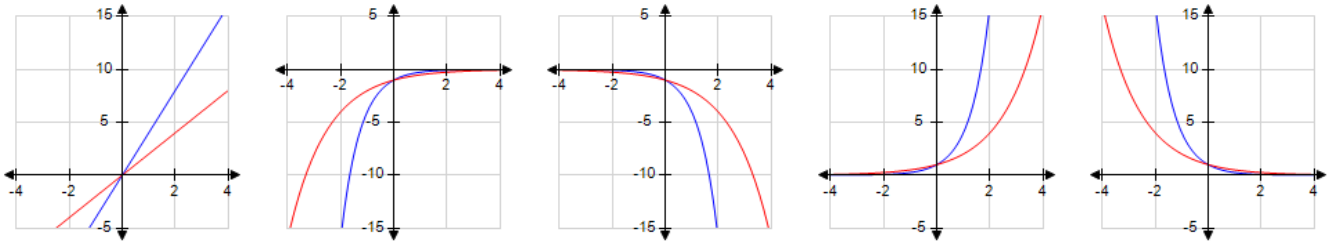
Worksheet: Graphs of exponential functions

1. Select the graph for the function $f(x) = (\frac{1}{8})^x$



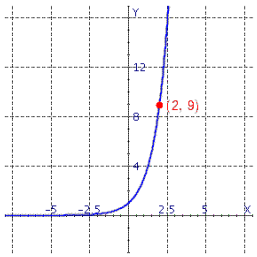
(A) (B) (C) (D) (E)

2. Identify the graphs of the functions $y = 2^x$ and $y = 4^x$



(A) (B) (C) (D) (E)

3. Find the exponential function $f(x) = a^x$ whose graph is given.



A. $f(x) = 3^x$

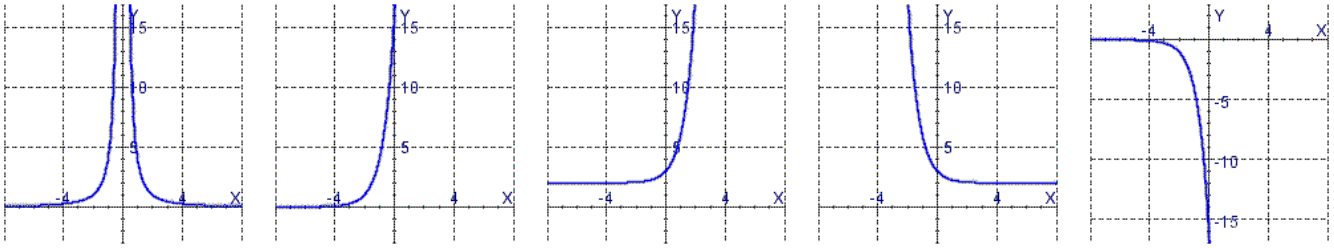
B. $f(x) = 3^{x+3}$

C. $f(x) = -3^x$

D. $f(x) = 3^{-x}$

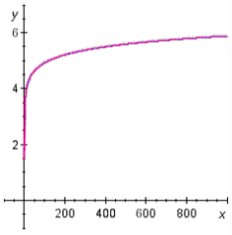
E. $f(x) = x^3$

4. Determine the graph of the function $y = 4^{x+2}$



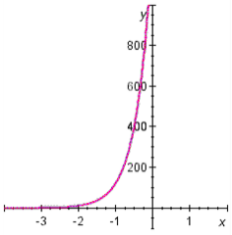
(A) (B) (C) (D) (E)

5. Determine the graph of the function $f(x) = 11^{x+3}$



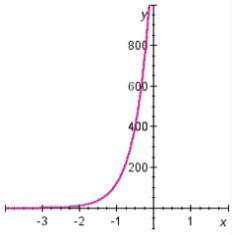
Domain: $(-\infty, \infty)$
Range: $(0, \infty)$
Asymptote: $y = 0$

(A)



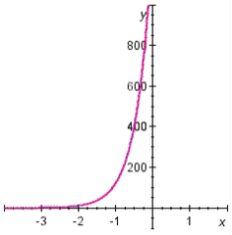
Domain: $(-\infty, \infty)$
Range: $(0, \infty)$
Asymptote: $x = 0$

(B)



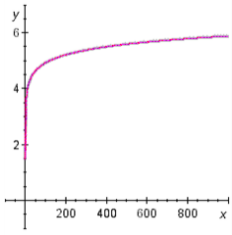
Domain: $(-\infty, \infty)$
Range: $(0, \infty)$
Asymptote: $y = 0$

(C)



Domain: $(0, \infty)$
Range: $(-\infty, \infty)$
Asymptote: $y = 0$

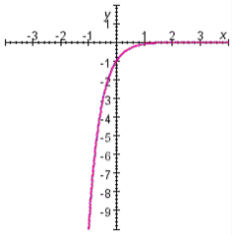
(D)



Domain: $(0, \infty)$
Range: $(-\infty, \infty)$
Asymptote: $y = 0$

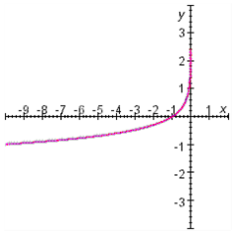
(E)

6. Determine the graph of the function $f(x) = -(\frac{1}{10})^x$



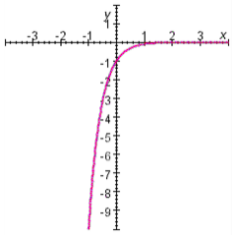
Domain: $(-\infty, \infty)$
Range: $(-\infty, 0)$
Asymptote: $x = 0$

(A)



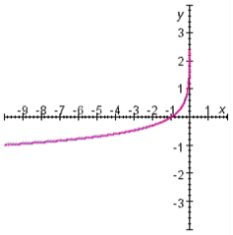
Domain: $(-\infty, 0)$
Range: $(-\infty, \infty)$
Asymptote: $x = 0$

(B)



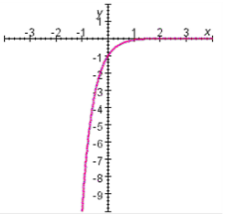
Domain: $(-\infty, 0)$
Range: $(-\infty, \infty)$
Asymptote: $x = 0$

(C)



Domain: $(-\infty, 0)$
Range: $(-\infty, \infty)$
Asymptote: $y = 0$

(D)



Domain: $(-\infty, \infty)$
Range: $(-\infty, 0)$
Asymptote: $y = 0$

(E)

7. Based on the given graph of $f(x) = 3^x$, graph $g(x) = 3^{-x}$ and $h(x) = 3^{x-1} + 1$