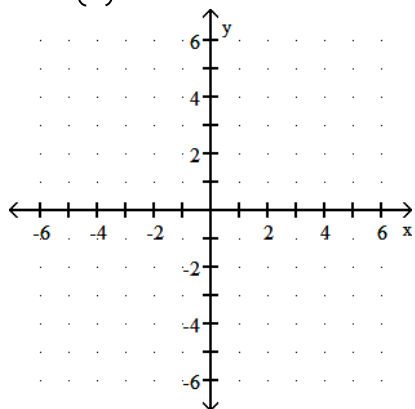


Graph the function by making a table of coordinates.

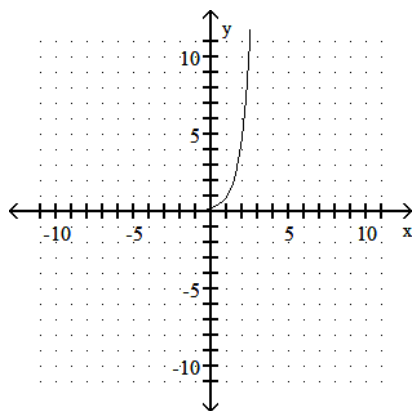
1) $f(x) = \left(\frac{1}{4}\right)^x$



The graph of an exponential function is given. Select the function for the graph from the functions listed.

2)

2) _____



A) $f(x) = 5^x - 1$

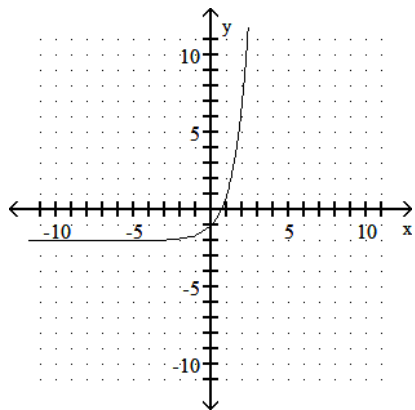
B) $f(x) = 5^x + 1$

C) $f(x) = 5^x - 1$

D) $f(x) = 5^x$

3)

3) _____



A) $f(x) = 3^x + 2$

B) $f(x) = 3^x - 2$

C) $f(x) = 3^x - 2$

D) $f(x) = 3^x$

Approximate the number using a calculator. Round your answer to three decimal places.

- 4) $e^{-1.5}$ 4) _____
A) 0.223 B) -0.223 C) -4.077 D) 0.523

Solve the problem.

- 5) The size of the bear population at a national park increases at the rate of 4.8% per year. If the size of the current population is 152, find how many bears there should be in 4 years. Use the function $f(x) = 152e^{0.048t}$ and round to the nearest whole number. 5) _____
A) 188 B) 184 C) 182 D) 186

- 6) The size of the coyote population at a national park increases at the rate of 4.1% per year. If the size of the current population is 104, find how many coyotes there should be in 3 years. Use the function $f(x) = 104e^{0.041t}$ and round to the nearest whole number. 6) _____
A) 122 B) 116 C) 118 D) 120

Use the compound interest formulas $A = P\left(1 + \frac{r}{n}\right)^{nt}$ and $A = Pe^{rt}$ to solve.

- 7) Find the accumulated value of an investment of \$2000 at 4% compounded annually for 14 years. 7) _____
A) \$3463.35 B) \$3120.00 C) \$3330.15 D) \$3040.00

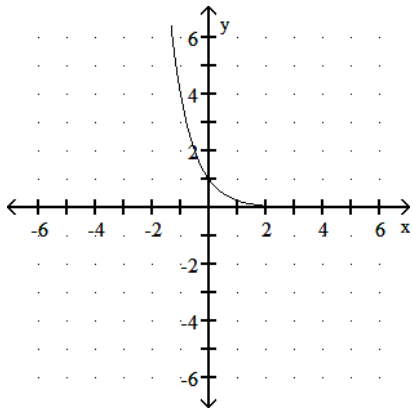
- 8) Find the accumulated value of an investment of \$1400 at 8% compounded quarterly for 4 years. 8) _____
A) \$1515.41 B) \$1904.68 C) \$1921.90 D) \$1848.00

- 9) Find the accumulated value of an investment of \$6000 at 8% compounded continuously for 4 years. 9) _____
A) \$8362.77 B) \$7920.00 C) \$8162.93 D) \$8262.77

Answer Key

Testname: PRACTICE13

1)



- 2) C
- 3) B
- 4) A
- 5) B
- 6) C
- 7) A
- 8) C
- 9) D