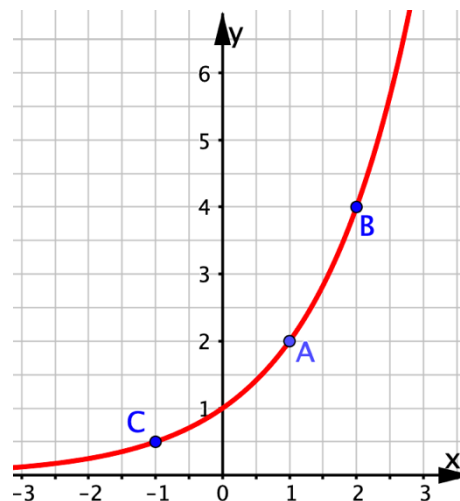


From real world to exponential law. Exercises

1. The number of bacteria in a certain culture doubles every hour. If there were one bacterium present in the culture originally, how many bacteria will be present at the end of one day? _____

2. On the right is the graph of an exponential function.

a. Use the grid to determine the coordinates of the points marked on the graph.



b. What is the equation of the graph? _____

c. For each of the following x -coordinates, find the associated y -coordinate. Give your answers exactly and do not use decimals.

$$x = 0 \quad y = \underline{\hspace{2cm}}$$

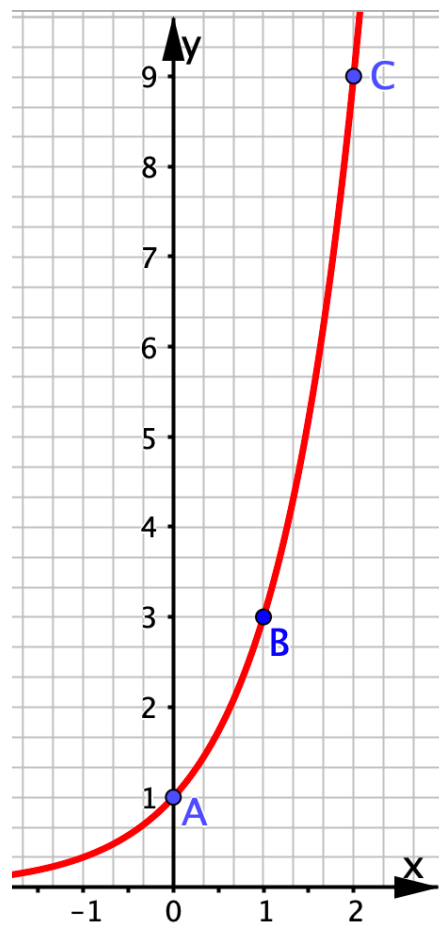
$$x = -2 \quad y = \underline{\hspace{2cm}}$$

$$x = 1/2 \quad y = \underline{\hspace{2cm}}$$

$$x = -1/2 \quad y = \underline{\hspace{2cm}}$$

3. At right is the graph of an exponential function.

a. Use the grid to determine the coordinates of the points marked on the graph.



b. What is the equation of the graph? _____

c. For each of the following x -coordinates, find the associated y -coordinate. Give your answers exactly and do not use decimals.

$$x = -1 \quad y = \underline{\hspace{2cm}}$$

$$x = -2 \quad y = \underline{\hspace{2cm}}$$

$$x = 1/2 \quad y = \underline{\hspace{2cm}}$$

$$x = -1/2 \quad y = \underline{\hspace{2cm}}$$

4. At right is the graph of an exponential function.

a. Use the grid to determine the coordinates of the points marked on the graph.

b. What is the equation of the graph? _____

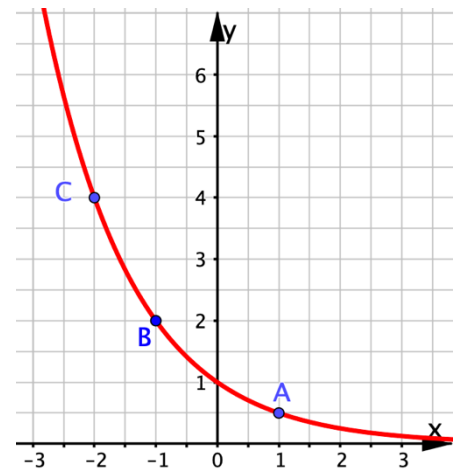
c. For each of the following x -coordinates, find the associated y -coordinate. Give your answers exactly and do not use decimals.

$$x = 0 \quad y = \underline{\hspace{2cm}}$$

$$x = 2 \quad y = \underline{\hspace{2cm}}$$

$$x = -3 \quad y = \underline{\hspace{2cm}}$$

$$x = 1/2 \quad y = \underline{\hspace{2cm}}$$



5. At right is the graph of an exponential function.

a. Use the grid to determine the coordinates of the points marked on the graph.

b. What is the equation of the graph? _____

c. For each of the following x -coordinates, find the associated y -coordinate. Give your answers exactly and do not use decimals.

$$x = -2 \quad y = \underline{\hspace{2cm}}$$

$$x = 2 \quad y = \underline{\hspace{2cm}}$$

$$x = 1/2 \quad y = \underline{\hspace{2cm}}$$

$$x = -1/2 \quad y = \underline{\hspace{2cm}}$$

