

Spring Break

Spiral Review

Name

Directions: Show your work for credit. Use your notes and textbook for support

1. Which expression is not equivalent to $\frac{6^3}{6^6}$?

Show your work

A $\frac{1}{6^2}$ C $\frac{1}{216}$

B 6^{-3} D $\frac{1}{6^3}$

2. A lab has two bacteria cultures. Culture A contains 8×10^4 bacteria, and culture B contains 4×10^6 bacteria. How do the two cultures compare in size?

A Culture A contains twice as many bacteria as culture B.

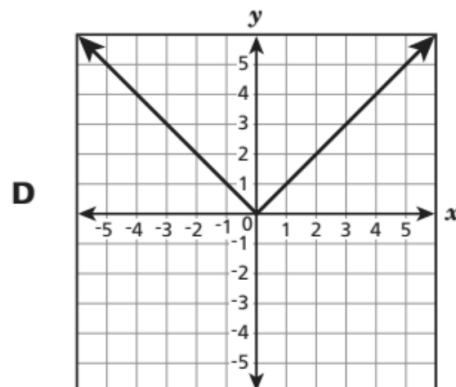
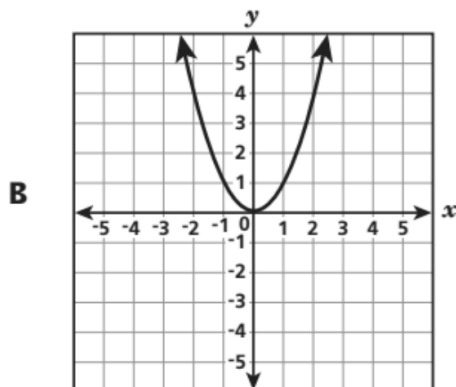
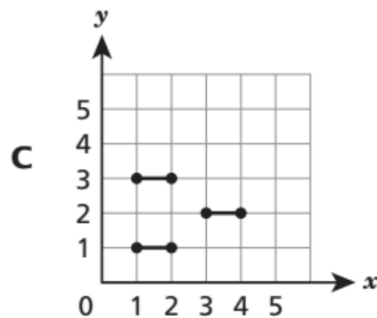
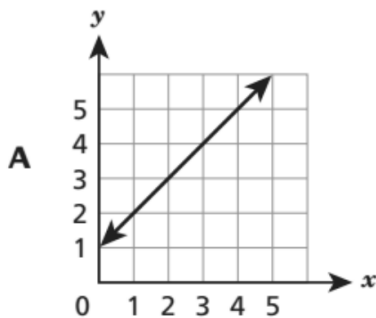
Show your work

B Culture A contains $\frac{1}{2}$ as many bacteria as culture B.

C Culture A contains $\frac{1}{25}$ as many bacteria as culture B.

D Culture A contains $\frac{1}{50}$ as many bacteria as culture B.

3. Which graph below does not represent a function of x ?



4. A water tank is in the shape of a right circular cylinder with a height of 20 feet and a volume of 320π cubic feet. What is the diameter, in feet, of the water tank?

A 16 $V = \pi r^2 h$

B 10

C 8

D 4

5. Which equation does **not** represent a linear function of x ?

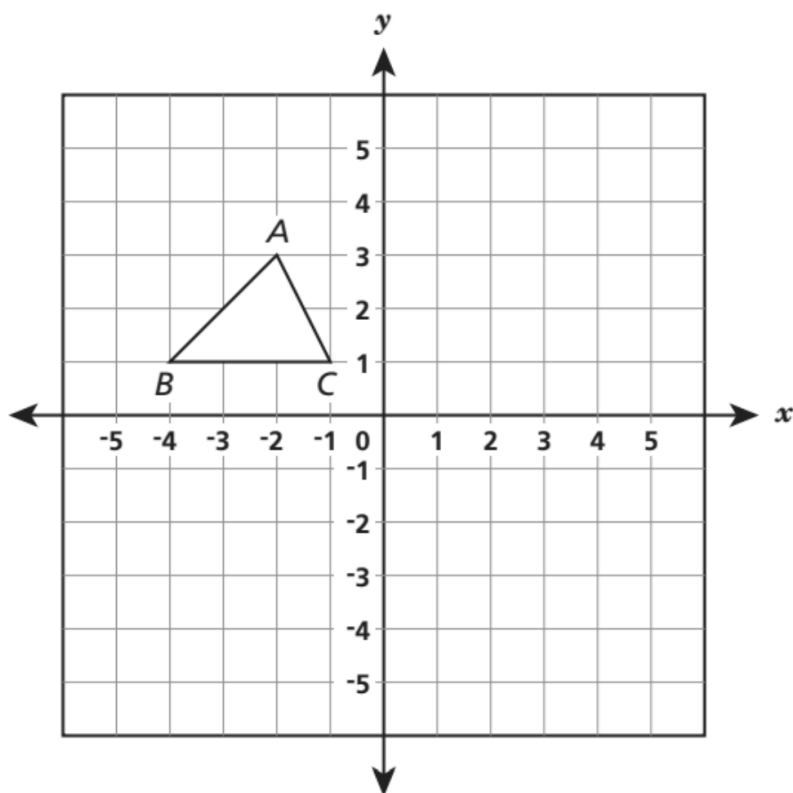
A $y = -\frac{3}{4}x$

B $y = \frac{x}{2}$

C $y = -3 + 2x$

D $y = 3x^2 - 2$

6. If $\triangle ABC$ is rotated 90° clockwise about the origin, what will be the new coordinates of vertex B ?



A $(-1, -4)$

B $(1, 4)$

C $(4, 1)$

D $(4, -1)$