

Multiple Choice

1) C and D are similar cones. The volume of D is 729 times larger than the volume of C. How much larger are the dimensions of D?

- a) 27 times b) 81 times c) 18 times d) 9 times

2) The perimeters of similar rectangles are 300 yards and 120 yards. Determine the ratio of their areas.

- a) 5 : 2 d) 4 : 25

3) Find the dilated coordinates of the point (1, 2) with center of dilation at the origin and the scale factor is 7.

- a) (7, 21) d) (-21, -7)

4) Find the scale factor of the dilation that maps the point (1, 2) to the point (64, 0.125).

- a) 4 : 0.5 d) 0.5 : 8

5) (16, 32) is the dilated image of the point (8, 16) with center of dilation at the origin.

- a) 8 b) 2 c) 4 d) -2

6) If the lengths of a geometrical shape are multiplied by a scale factor of $3k$, then the volume of the new shape will be multiplied by a scale factor of

- a) $3k^3$ b) $3k$ c) $9k^2$ d) $27k^3$

