

## Multiple Choice

- 1)  $(4x, 14)$  is the dilated point of  $(6, 7)$ . Determine the value of  $x$ , when the center of dilation is at the origin.
- a) 12                      b) 6                      c) 2                      d) 3
- 2) P and Q are similar prisms. The volume of Q is 27 times larger than the volume of P. How much larger are the dimensions of Q?
- a) 27 times                      d) 81 times
- 3) The surface areas of similar solids are in the ratio 4 : 9. Determine the ratio of their volumes.
- a) 8 : 27                      d) 27 : 8
- 4) If the lengths of a geometric solid are multiplied by a scale factor of 2, then the volume of the new shape will be multiplied by what factor?
- a)  $16a^2$                       d)  $4a^3$
- 5) Find the scale factor of a dilation that maps a triangle with side lengths 7, 8, and 9 to a triangle with side lengths 49, 56, and 63. The ratio is 8 : 7.
- a) 49 : 64                      b) 7 : 8                      c) 64 : 49                      d) 8 : 7
- 6) Find the dilated coordinates of  $(5, -7)$ , when the center of dilation is at the origin and the scale factor is 5.
- a)  $(-35, 25)$                       b)  $(25, 35)$                       c)  $(25, -35)$                       d)  $(35, 25)$

