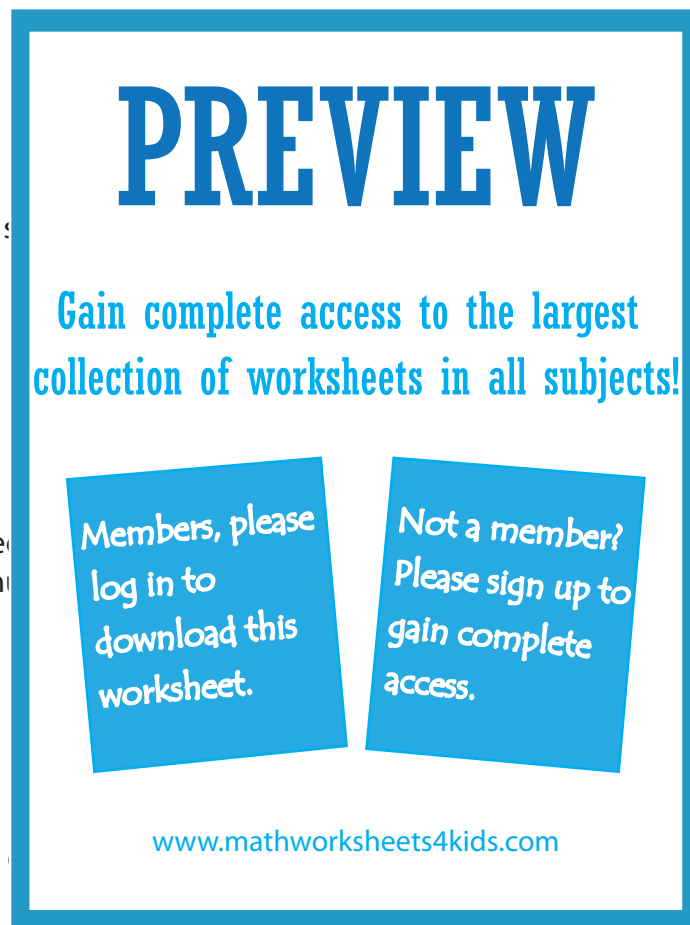


Multiple Choice

- 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 8 : 27. 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 4, then the volume of the new shape will be multiplied by what?
- a) $16a^2$ d) $4a^3$
- 5) Find the scale factor of similar solids if the surface areas are in the ratio 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) $(35, 25)$



Name : _____

Answer key

Multiple Choice

Sheet 5

- 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 P and Q are 16 and 144 respectively. Determine the ratio of their volumes.
- a) 8 : 27 d) 27 : 8
- 4) If the lengths of a geometric solid are multiplied by 2, then the volume of the new shape will be multiplied by
- 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
- 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) $(35, 25)$

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