1) Select the solid whose cross sections are dilations of some two-dimensional shape using a point directly above the shape as a center and scale factors ranging from 0 to 1.

A. cone
B. cube
C. cylinder
D. triangular prism

2) Select all figures for which at least one cross section is a circle.

A. triangular prism
B. square pyramid
C. rectangular prism
D. cube
E. cone
F. cylinder
G. sphere

3) If the two-dimensional figures are rotated around the verticle axes of rotation described, what solids are formed?

A. a rectangle
B. a semi-circle

4) A circle with an area of 8π square centimeters is dilated so that its image has an area of 32π square centimeters. What is the scale factor of the dilation?

A. 2
B. 4
C. 8
D. 16

A trapezoid has an area of 100 square units. What scale factor would be required to dilate the trapezoid to have each area?

A. 6400 square units
B. 900 square units
C. 100 square units
D. 25 square units
E. 4 square units

A polygon with area 10 square units is dilated by a scale factor of k. Find the area of the image for each value of k.

A. $k = 4$
B. $k = 1.5$
C. $k = 1$
D. $k = {}^{1}/_{3}$

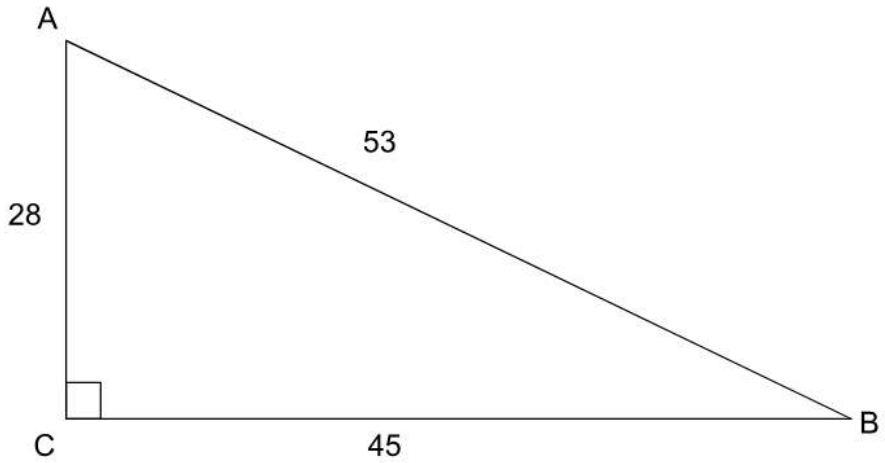
Parallelogram AB'C'D' was obtained by dilating parallelogram ABCD using A as the center of dilation.

A. What was the scale factor of the dilation?
B. How many congruent copies of ABCD have we fit inside AB'C'D'?
C. How does the area of parallelogram AB'C'D' compare to parallelogram ABCD?
D. If parallelogram ABCD has area 12 square units, what is the area of parallelogram AB'C'D'?

Select **all** solids whose cross sections are dilations of some two-dimensional shape using a point directly above the shape as a center and scale factors ranging from 0 to 1.

A. cylinder
B. cube
C. triangular prism
D. cone
E. triangular pyramid

Select **all** expressions which give the measure of angle A.



A. $\arccos(\frac{28}{53})$
B. $\arccos(\frac{45}{53})$
C. $\arcsin(\frac{28}{53})$
D. $\arcsin(\frac{45}{53})$
E. $\arctan(\frac{28}{45})$
F. $\arctan(\frac{45}{28})$