

Grade 7 - Area, Volume and Surface Area - Test

Common Core 7.G.B.6 · maths-pdf.fr/en/

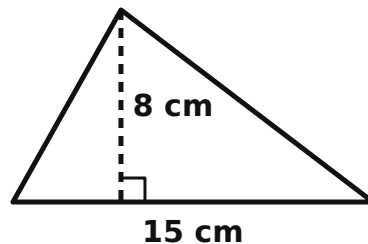
Name: _____ Class: _____ Date: ____/____/____

This 45-minute test checks the area of triangles, quadrilaterals, and polygons, and the volume and surface area of right prisms, including composite figures (Common Core 7.G.B.6). It has 9 questions worth 20 points in all. Show your work, because most questions give partial credit for correct steps.

About this test

- Grade: Grade 7
- Chapter: Area, Volume and Surface Area
- Standards: 7.G.B.6
- Time: 45 minutes
- Total: 20 points

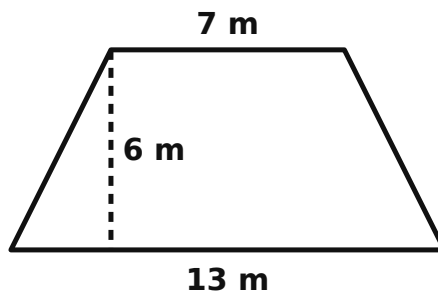
Question 1 - Triangle [2 pts]



A triangle.

Find the area of the triangle.

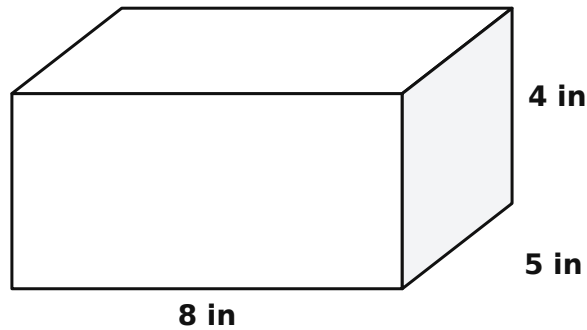
Question 2 - Trapezoid [2 pts]



A trapezoid.

Find the area of the trapezoid.

Question 3 - Prism volume and surface [2 pts]



A rectangular prism.

Find the volume and the surface area of the prism.

Question 4 - Triangular prism [2 pts]

A triangular prism has a right triangle base with legs of 6 in and 8 in. The prism is 9 in long. Find its volume.

Question 5 - Composite figure [2 pts]

A figure is a 12-ft by 9-ft rectangle with a 3-ft by 4-ft rectangle cut out of one corner. Find its area.

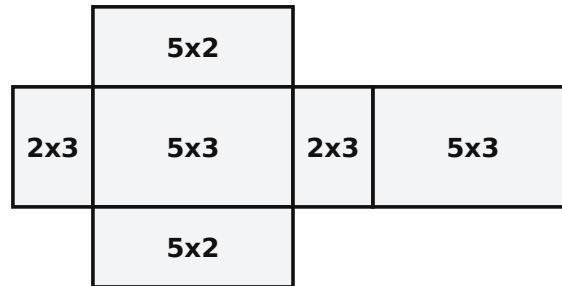
Question 6 - Missing height [2 pts]

A rectangular prism has a base of 6 cm by 5 cm and a volume of 150 cubic centimeters. Find its height and surface area.

Question 7 - Pool water [2 pts]

A pool is 25 ft by 10 ft and 4 ft deep. Find the volume of water when the pool is filled to a depth of 3 ft. Then find the percent of the pool's volume that is filled.

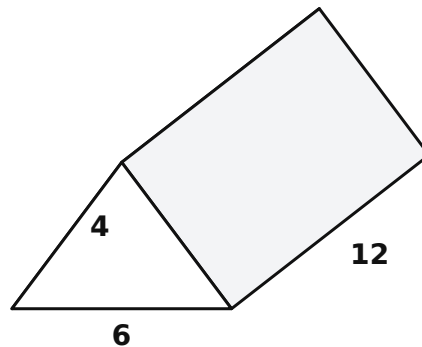
Question 8 - Net [3 pts]



A net of a box.

- Name the solid and give its dimensions. (1 point)
- Find the surface area using the net. (1 point)
- Find the volume. (1 point)

Question 9 - Wedge of cheese [3 pts]



A wedge of cheese.

- Find the area of the triangular end. (1 point)
- Find the volume of the cheese. (1 point)
- Cheese costs \$0.05 per cubic inch. Find the cost of the wedge. (1 point)