

Finding the Area of Flat Shapes

Grade 6 math · Test · Standards: 6.G.A.1

Name: _____ Date: _____ Class: _____

This test checks standard 6.G.A.1. Find areas of triangles, parallelograms, trapezoids and composite figures. Show the formula and the substitution, and write square units. The test is worth 20 points and should take 45 minutes.

Standards: 6.G.A.1 · **Level:** Grade 6

Time: 45 minutes · 8 questions · Total: 20 points · Calculator: as allowed by your teacher

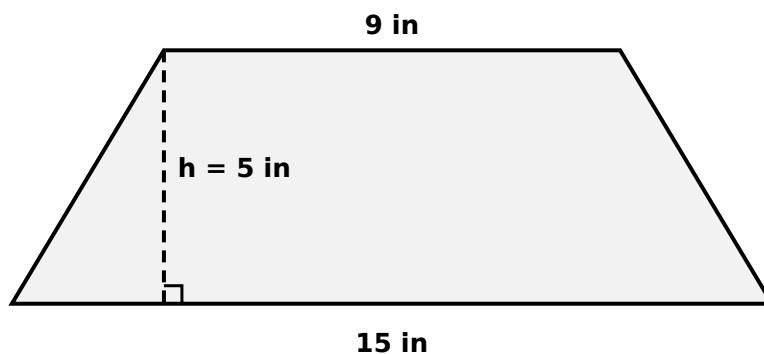
Question 1 Triangle and parallelogram (2 points)

Find each area.

- A triangle with a base of 13 feet and a height of 8 feet. (1 point)
- A parallelogram with a base of 14 meters and a height of 6.5 meters. (1 point)

Question 2 Area of a trapezoid (2 points)

Find the area of the trapezoid.



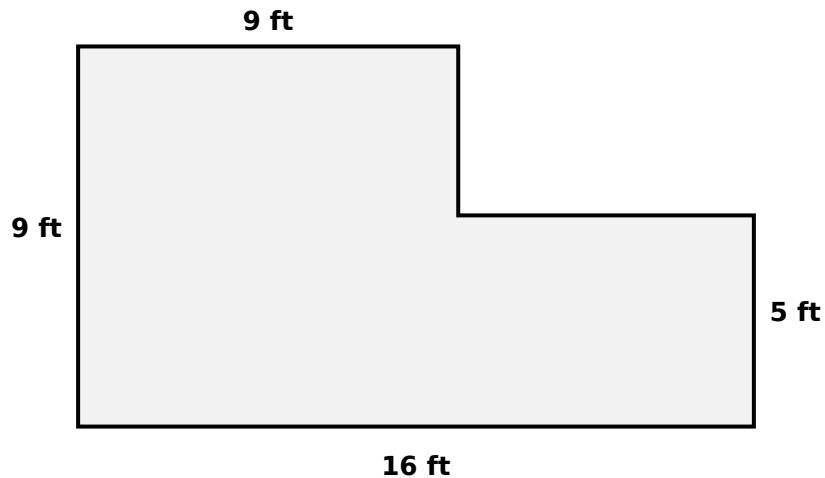
Trapezoid for Question 2.

Question 3 Missing height (2 points)

A triangle has an area of 65 square feet and a base of 10 feet. Find its height.

Question 4 Composite floor plan (3 points)

Find the area of the floor.



Floor plan for Question 4.

Question 5 Playground shade (3 points)

A playground has a triangular shade sail with a base of 12 feet and a height of 9 feet, and a rectangular sandbox that measures 7 feet by 5 feet.

- Find the area of the shade sail. (1 point)
- Find the area of the sandbox. (1 point)
- Find how much greater the area of the sail is than the area of the sandbox. (1 point)

Question 6 Mural wall (3 points)

A wall is a trapezoid with parallel sides of 20 feet and 14 feet that are 9 feet apart. One quart of paint covers 36 square feet.

- Find the area of the wall. (2 points)
- Find the least whole number of quarts needed for one coat. (1 point)

Question 7 Comparing two shapes (3 points)

Shape A is a parallelogram with a base of 16 inches and a height of 9 inches. Shape B is a triangle with a base of 24 inches and a height of 12 inches.

- Find the area of each shape. (2 points)
- Compare the two areas. (1 point)

Question 8 Missing base (2 points)

A parallelogram has an area of 156 square meters and a height of 12 meters. Find its base.