

Grade 6 - Area of Triangles and Polygons - Worksheet

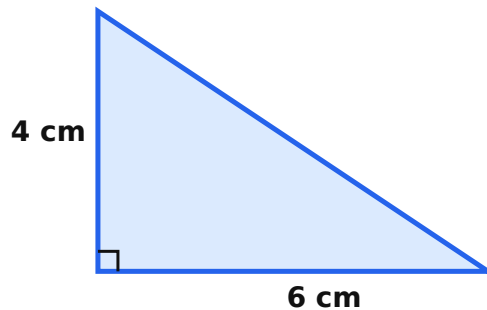
Common Core 6.G.A.1 · maths-pdf.fr/en/

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

These 20 problems practice the area of triangles, parallelograms, trapezoids, and composite polygons (Common Core 6.G.A.1). You will compose and decompose shapes into rectangles and triangles, find missing dimensions, use the coordinate plane, and solve real-world area problems.

Grade 6 · Common Core State Standards: **6.G.A.1**

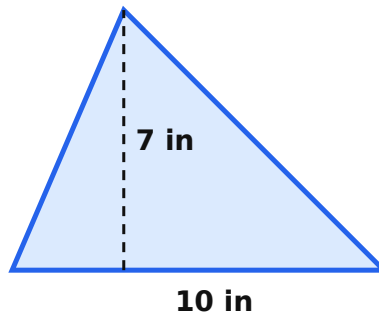
Exercise 1 - Area of a right triangle



A right triangle.

Find the area of the triangle.

Exercise 2 - Area of a triangle



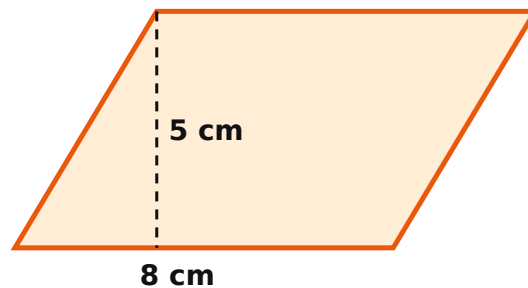
The height is perpendicular to the base.

Find the area of the triangle.

Exercise 3 - Triangle with a decimal height

A triangle has a base of 5 meters and a height of 3.5 meters. Find its area.

Exercise 4 - Area of a parallelogram



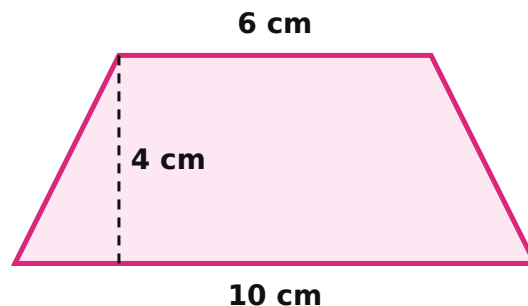
A slanted rectangle.

Find the area of the parallelogram.

Exercise 5 - Another parallelogram

A parallelogram has a base of 12 feet and a height of 7 feet. Find its area.

Exercise 6 - Area of a trapezoid



A trapezoid.

Find the area by splitting the trapezoid into two triangles and a rectangle, or into two triangles.

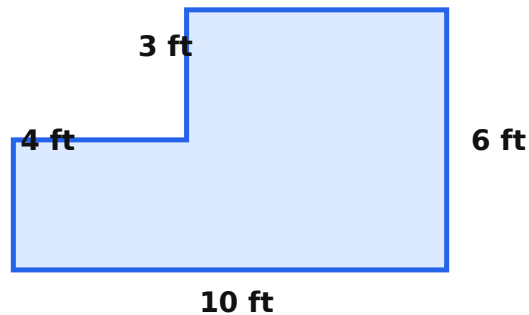
Exercise 7 - Find the height

A triangle has an area of 30 square inches and a base of 12 inches. Find its height.

Exercise 8 - Find the base

A triangle has an area of 42 square meters and a height of 7 meters. Find its base.

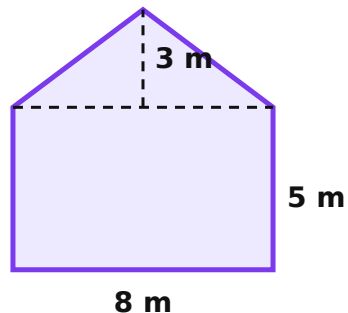
Exercise 9 - L-shaped region



An L-shaped patio.

Find the area of the L-shaped patio.

Exercise 10 - Square plus triangle



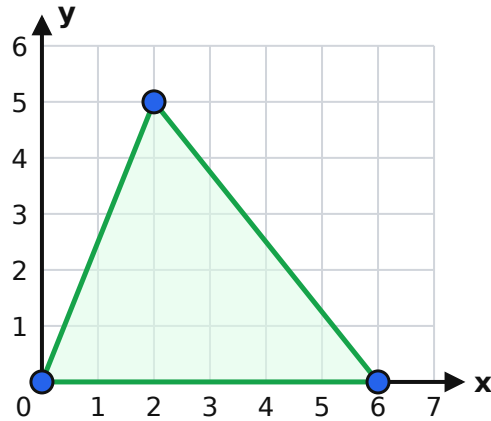
A house front.

Find the area of the front of the house.

Exercise 11 - Quadrilateral from two triangles

A quadrilateral is split by a diagonal of length 10 centimeters. The two triangles have heights 3 centimeters and 4 centimeters measured to the diagonal. Find the area of the quadrilateral.

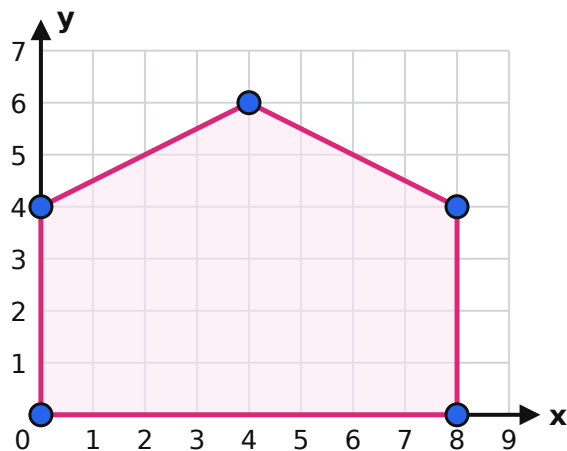
Exercise 12 - Triangle on the coordinate plane



Triangle on a grid.

A triangle has vertices $(0, 0)$, $(6, 0)$, and $(2, 5)$. Find its area.

Exercise 13 - Pentagon on the coordinate plane



A pentagon.

A pentagon has vertices $(0, 0)$, $(8, 0)$, $(8, 4)$, $(4, 6)$, and $(0, 4)$. Find its area by splitting it into a rectangle and a triangle.

Exercise 14 - Triangular sail

A triangular sail has a base of 4 meters and a height of 6 meters. Find the area of the sail.

Exercise 15 - Garden soil

A garden is a parallelogram with a base of 14 feet and a height of 9 feet. Soil costs \$0.50 per

square foot. Find the area and the cost to cover it.

Exercise 16 - Trapezoid garden

A trapezoid-shaped garden has parallel sides of 12 feet and 20 feet. The distance between them is 8 feet. Find the area.

Exercise 17 - Compare areas

A triangle has a base of 10 and a height of 6. A rectangle is 5 by 6. Compare their areas.

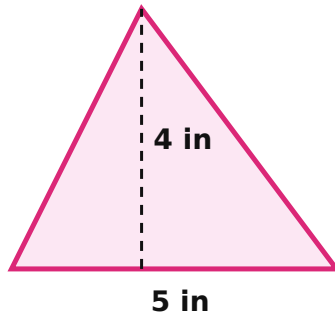
Exercise 18 - Corner cut off

A rectangle is 14 inches by 9 inches. A right triangle with legs 4 inches and 3 inches is cut from one corner. Find the area that remains.

Exercise 19 - Painting a gable

The front of a barn has a triangular gable with a base of 12 feet and a height of 8 feet. One can of paint covers 24 square feet. Find the number of cans needed to paint the gable.

Exercise 20 - Quilt triangles



One triangle of the quilt.

A quilt uses 6 triangles like the one shown. Find the total area of the triangles.