

Grade 7 - Scale Drawings - Worksheet

Common Core 7.G.A.1 · maths-pdf.fr/en/

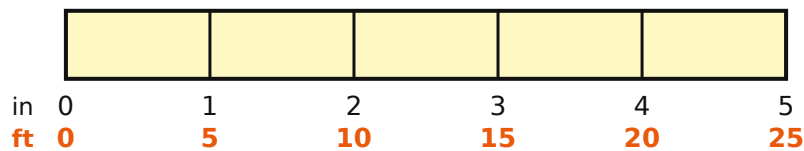
Name: _____ Class: _____ Date: ____/____/____

These 20 problems practice scale drawings, including finding actual lengths and areas, scale factors, and reproducing a drawing at a different scale (Common Core 7.G.A.1). They start with the basic skill, move to different kinds of numbers and multistep work, and end with six word problems set in everyday situations such as shopping, sports, and travel.

Show every step of your work, and use the answer key only after you have tried each problem.

Grade 7 · Common Core State Standards: 7.G.A.1

Exercise 1 - Actual length



Each inch stands for 5 feet.

A scale drawing uses the scale 1 in = 5 ft. A hallway is 3 in long on the drawing. Find its actual length.

Exercise 2 - Map distance

A map uses the scale 1 in = 20 mi. Two towns are 4.5 in apart on the map. Find the actual distance.

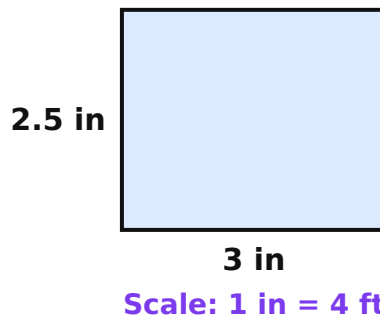
Exercise 3 - Length on the drawing

A garage is 36 ft long. Find its length on a drawing with scale 1 in = 6 ft.

Exercise 4 - Scale factor

A drawing has the scale 2 in = 10 ft. Find the scale factor as a ratio of drawing length to actual length.

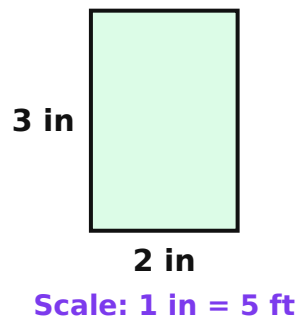
Exercise 5 - Room dimensions



A bedroom on a floor plan.

Find the actual length, width, and area of the bedroom.

Exercise 6 - Area from a drawing



A patio on a drawing.

On a drawing with scale 1 in = 5 ft, a patio has an area of 6 square inches. Find the actual area.

Exercise 7 - Fraction scale

A blueprint uses the scale $\frac{1}{4}$ in = 1 ft. A wall measures $3\frac{3}{4}$ in on the blueprint. Find its actual length.

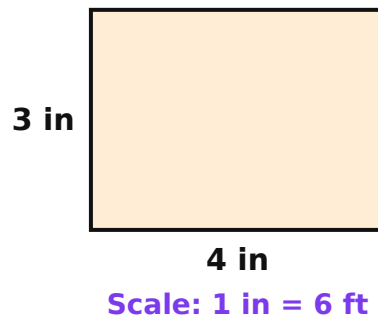
Exercise 8 - Find the scale

A 20-foot fence is drawn as 2.5 inches long. Write the scale as 1 in = ? ft.

Exercise 9 - Enlargement

A photo of an ant is drawn at a scale of 8 : 1 (drawing : actual). The ant is $\frac{3}{16}$ in long. Find the length in the drawing.

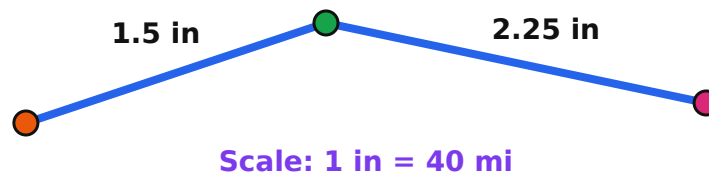
Exercise 10 - Compare areas



A court on a drawing.

A court is 24 ft by 18 ft. It is drawn with scale 1 in = 6 ft. Find the drawing's dimensions and area, then find how many times as large the actual area is.

Exercise 11 - Two-leg trip



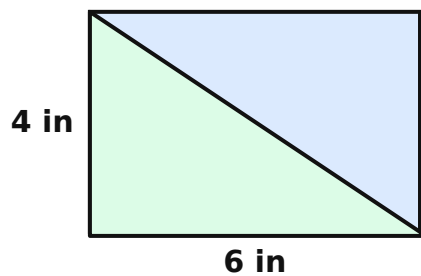
A trip with two legs.

A map has the scale 1 in = 40 mi. A trip has two legs of 1.5 in and 2.25 in on the map. Find the actual length of the whole trip.

Exercise 12 - New scale

A wall is 4 in long on a drawing with scale 1 in = 10 ft. Find its length if the plan is redrawn with scale 1 in = 5 ft.

Exercise 13 - Triangle area



Scale: 1 in = 3 ft

Garden with base 6 in and height 4 in.

A triangular garden is drawn with base 6 in and height 4 in at scale 1 in = 3 ft. Find the actual area.

Exercise 14 - New carpet

A living room is 5 in by 3.5 in on a plan with scale 1 in = 3 ft. Carpet costs \$4.50 per square foot. Find the cost to carpet the room.

Exercise 15 - Drive time

On a map, 1 in = 40 mi. Jamal's route is $2\frac{3}{4}$ in long. He drives at 55 miles per hour. How long does the trip take?

Exercise 16 - Model airplane

A model of a plane uses the scale 1 : 48 (model : actual). The real plane is 40 ft long. Find the model length in inches.

Exercise 17 - Window on a blueprint

A blueprint uses $\frac{1}{2}$ in = 1 ft. A window is $1\frac{1}{2}$ in wide on the blueprint. Find its actual width.

Exercise 18 - Garden fence

A garden is 4.5 in by 3 in on a drawing with scale 1 in = 4 ft. Fencing costs \$2.25 per foot. Find the actual area and the cost of fencing the perimeter.

Exercise 19 - Playground area

A playground has an area of 12 square inches on a drawing with scale 1 in = 15 ft. Find the actual area, and the number of 1-foot-square rubber tiles needed to cover it.

Exercise 20 - Mural plan

A mural is 15 ft wide and 9 ft tall. Mei draws a plan with the scale 1 in = 1.5 ft. Find the width

and height of the plan and its area.