Luna's Space Adventure

Name _____

Grade 4 · Area and perimeter formulas · 4.MD.A.3

Date _____

Astronaut Luna is exploring a far-off corner of space. Solve each problem to help Luna's mission go smoothly!

Area and perimeter

A = length × width. P = 2 × length + 2 × width.

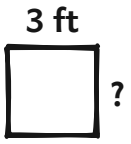
A rectangle 15 m by 10 m. Area: _____ Perimeter: _____

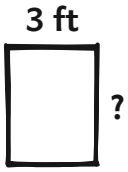
A rectangle 11 m by 9 m. Area: _____ Perimeter: _____

A rectangle 4 m by 2 m. Area: _____ Perimeter: _____

Find the missing side

Use the area to find the side marked ?





A = 9 sq ft, ? = ☐ ft

A = 12 sq ft, ? = ☐ ft

A = 14 sq ft, ? = ☐ ft

Story time

1. Orion's garden is 17 ft long and 10 ft wide. How many feet of fence go all the way around?

_____ **ft**

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ANSWER KEY

Astronaut Luna is exploring a far-off corner of space. Solve each problem to help Luna's mission go smoothly!

Area and perimeter

A = length × width. P = 2 × length + 2 × width.

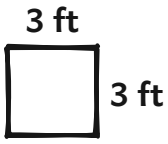
A rectangle 15 m by 10 m. Area: 150 sq m Perimeter: 50 m

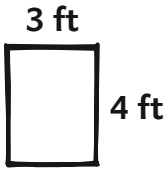
A rectangle 11 m by 9 m. Area: 99 sq m Perimeter: 40 m

A rectangle 4 m by 2 m. Area: 8 sq m Perimeter: 12 m

Find the missing side

Use the area to find the side marked ?





A = 9 sq ft, ? = 3 ft A = 12 sq ft, ? = 4 ft A = 14 sq ft, ? = 2 ft

Story time

1. Orion's garden is 17 ft long and 10 ft wide. How many feet of fence go all the way around?

   2 × 17 + 2 × 10 = 54

54 ft

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GUIDE

1 What this sheet practises

Using formulas for rectangles: area = length × width and perimeter = 2 × length + 2 × width, including finding a missing side.

2 A problem from the sheet, worked out

Area and perimeter

A = length × width. P = 2 × length + 2 × width.

A rectangle 15 m by 10 m. Area:	150 sq m	Perimeter:	50 m
A rectangle 11 m by 9 m. Area:	99 sq m	Perimeter:	40 m
A rectangle 4 m by 2 m. Area:	8 sq m	Perimeter:	12 m

How: For area, multiply the length by the width. For perimeter, add all four sides. For a missing side, divide the area by the side you know.

3 Words to know

area the space inside: length × width

perimeter the distance all the way around

formula a rule for working something out

square units what area is measured in: sq m, sq ft

4 Watch for

- Mixing up area and perimeter.
- Adding only two sides for the perimeter instead of all four.
- Writing area in plain units, like 80 m, instead of 80 sq m.

5 Where it fits

BEFORE
3.MD.C.7
Connect area to multiplying and adding.

THIS SHEET
4.MD.A.3
Use area and perimeter formulas for rectangles.

NEXT
5.MD.C.5
Find the volume of rectangular prisms by multiplying and adding.

6 Helping at home

Measure a room or a table in feet. Work out the area for a rug, and the perimeter for a strip of tape around the edge.