

Luna's Space Adventure

Grade 5 · Area with fraction and decimal sides · MA.5.GR.2.1

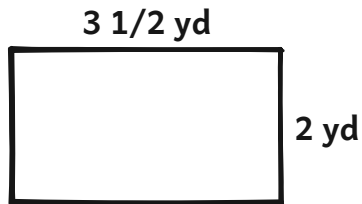
Name _____

Date _____



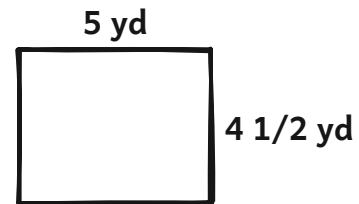
Astronaut Luna is exploring a far-off corner of space. Solve each problem to help Luna's mission go smoothly!

Fraction sides Area is length $\times$ width. Perimeter is all four sides added. Write mixed numbers.



Area _____

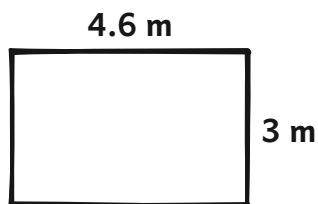
Perimeter _____



Area _____

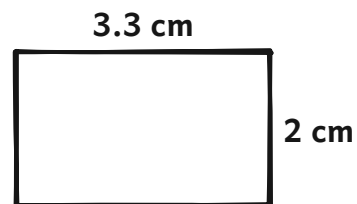
Perimeter _____

Decimal sides Multiply the sides for the area; add all four for the perimeter.



Area _____

Perimeter _____



Area _____

Perimeter _____

A garden Draw the rectangle and label its sides first.

A garden is $1 \frac{1}{4} \text{ yd}$ long and 4 yd wide. How much fence goes all the way around it? _____

How many square yards of soil cover the same garden? _____



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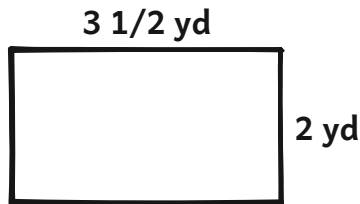
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ANSWER KEY



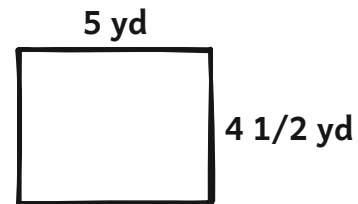
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Area 7 sq yd

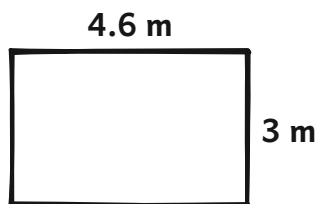
Perimeter 11 yd



Area 22 1/2 sq yd

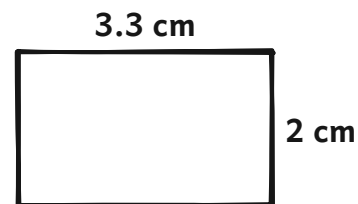
Perimeter 19 yd

Decimal sides Multiply the sides for the area; add all four for the perimeter.



Area 13.8 sq m

Perimeter 15.2 m



Area 6.6 sq cm

Perimeter 10.6 cm

A garden Draw the rectangle and label its sides first.

A garden is $1 \frac{1}{4}$ yd long and 4 yd wide. How much fence goes all the way around it?

10 1/2 yd

How many square yards of soil cover the same garden?

5 sq yd



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GUIDE

① What this sheet practises

Finding the area and perimeter of rectangles whose sides are mixed numbers or decimals, and a garden story with both.

② A problem from the sheet, worked out

A garden Draw the rectangle and label its sides first.

A garden is $1\frac{1}{4}$ yd long and 4 yd wide. How much fence goes all the way around it?

$10\frac{1}{2}$ yd

How many square yards of soil cover the same garden?

5 sq yd

How: Area is length $\times$ width: change mixed numbers to fractions, multiply, then simplify. Perimeter is all four sides added, or $2 \times (\text{length} + \text{width})$.

③ Words to know

area the space inside a shape, in square units

perimeter the distance all the way around a shape

mixed number a whole number and a fraction, like $2\frac{1}{2}$

square units the units area is measured in, like sq ft

④ Watch for

- Adding only two sides for the perimeter.
- Multiplying the whole numbers and the fractions separately.
- Writing area in feet instead of square feet.

⑤ Where it fits

BEFORE

4.MD.A.3

Use area and perimeter formulas for rectangles.

THIS SHEET

MA.5.GR.2.1

Find perimeter and area of rectangles with fraction or decimal side lengths.

NEXT

5.NF.B.6

Solve real-world problems multiplying fractions and mixed numbers.

⑥ Helping at home

Measure a table or a book in inches, halves included, and work out its area and the distance around it.

