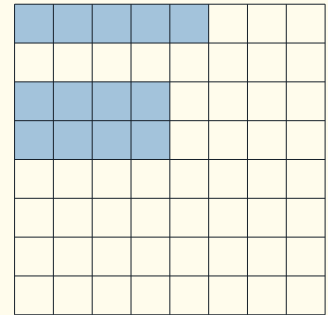


SAME FENCE, DIFFERENT SPACE

- ① Both rectangles use the same fence of **12 cm**: $1 + 5 + 1 + 5 = 12$ and $2 + 4 + 2 + 4 = 12$.
- ② The long thin rectangle is **1** row of **5** squares, so its area is **5 cm²**.
- ③ The fatter rectangle is **2** rows of **4** squares, so its area is **8 cm²**.
- ④ Same perimeter, yet **8 cm²** holds more space than **5 cm²**.



WARM-UP

Use the squared space to draw and compare rectangles that share a fence.



1. Draw the 3 by 9 rectangle and the 6 by 6 rectangle, and check each has a perimeter of 24 cm.
2. Count the squares inside each one and write 5 cm² under the 1 by 5 and 8 cm² under the 2 by 4.
3. Draw two different rectangles that each have a perimeter of 10 cm, write the area under each, and circle the one that holds more space.

PRACTICE

- ① Sam builds a wooden frame shaped like a **5 cm** by **3 cm** rectangle. How long is the fence all the way around it?

? ALWAYS, SOMETIMES, NEVER

Always true, sometimes true, or never true? Write A, S or N.

- | | |
|--|--|
| a. Two rectangles with the same perimeter have the same area. <input type="text"/> | c. You find perimeter by multiplying length by width. <input type="text"/> |
| b. Perimeter is measured in square centimetres. <input type="text"/> | d. The area of a rectangle equals length times width. <input type="text"/> |

REFLECT

What surprised you most about shapes that share a perimeter but have different areas?