Mathematics

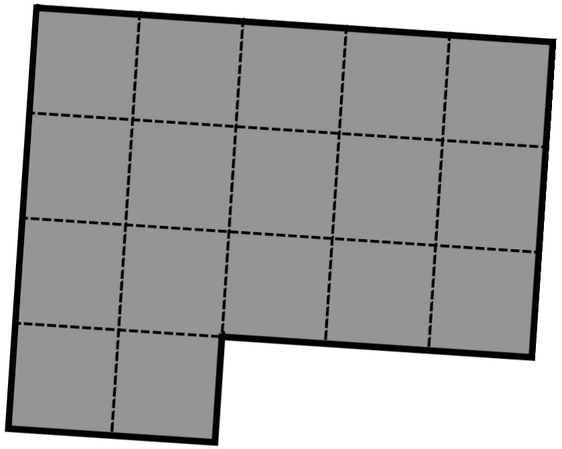
Cutting and combining shapes
Lesson 3 of 8

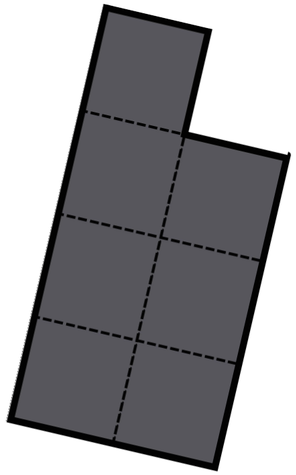
Miss Kidd-Rossiter

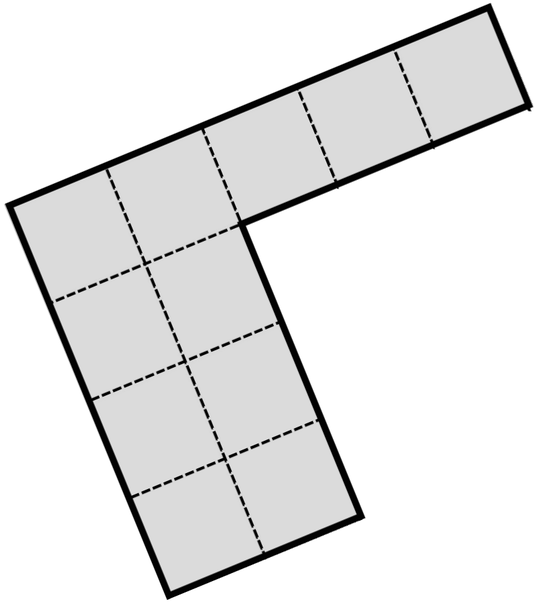
Try this

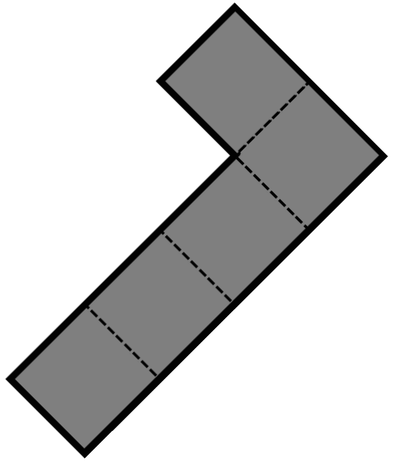
Combine two or more of these hexagons to form a rectangle.

How many solutions can you find?

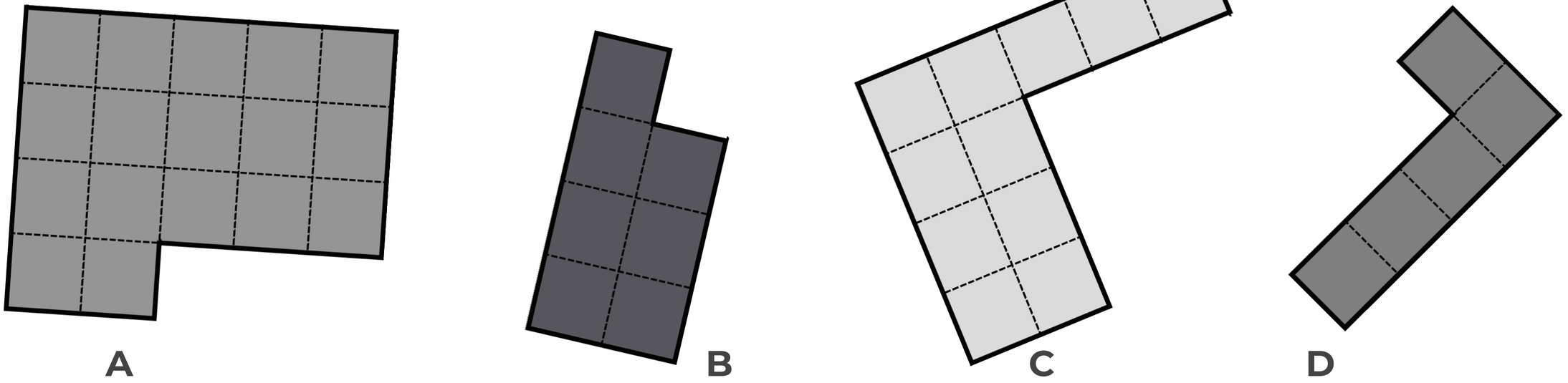








Connect



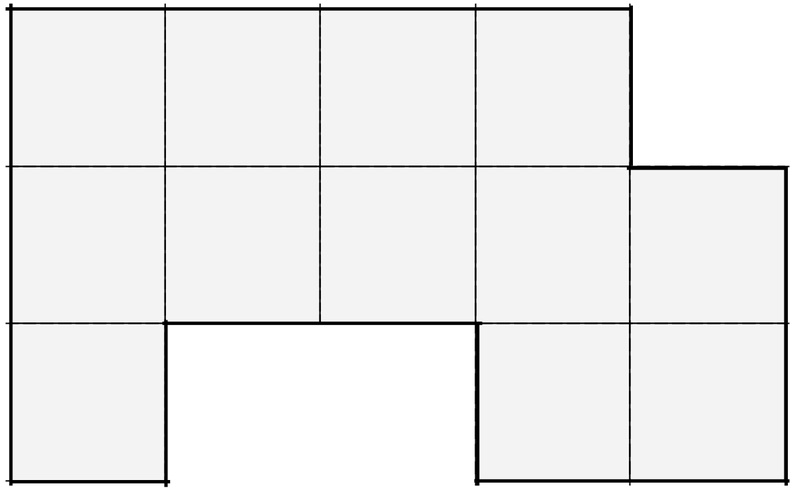
Find the area and the perimeter of each shape.

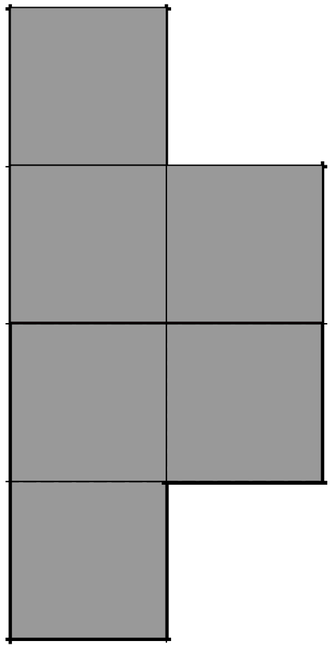
Form a compound shape by combining the hexagons **(A)** and **(B)**.

What is the area and perimeter of the compound shape?

Independent task

1. Find the area and perimeter of these shapes.





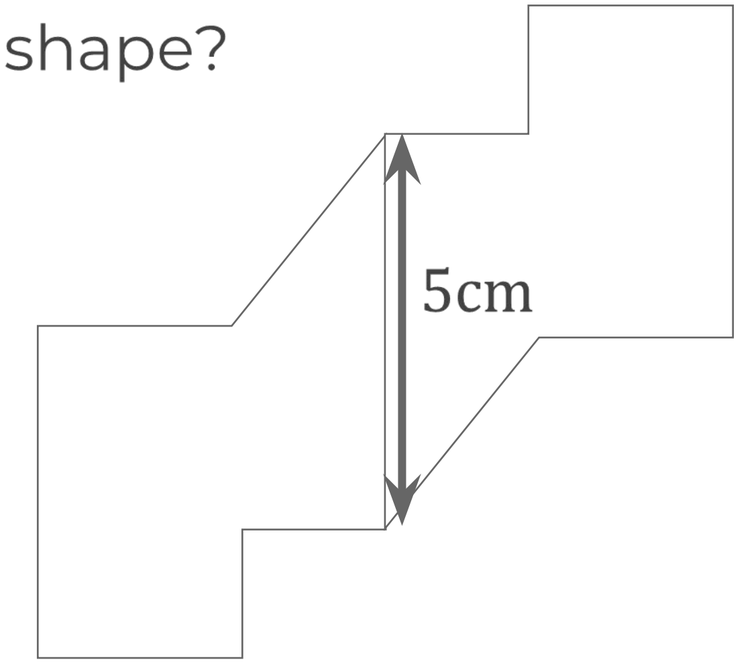
2. Combine the two shapes in question 1 to make a compound shape with area 18 units squared and perimeter 22 units.

Independent task

3. The diagram shows two heptagons.

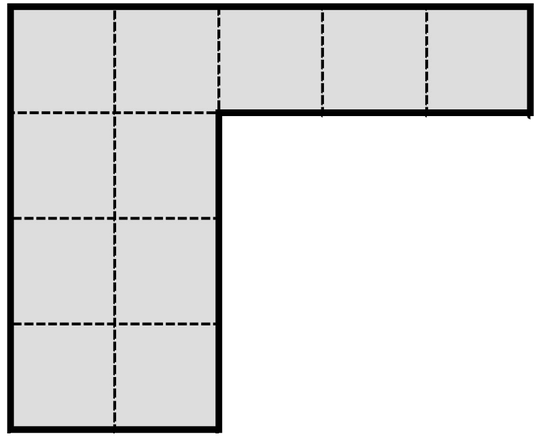
Each has area 22cm^2 and perimeter 24cm.

What is the area and perimeter of the compound shape?

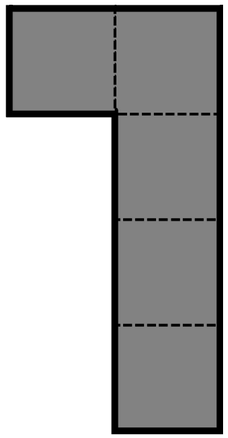


Explore

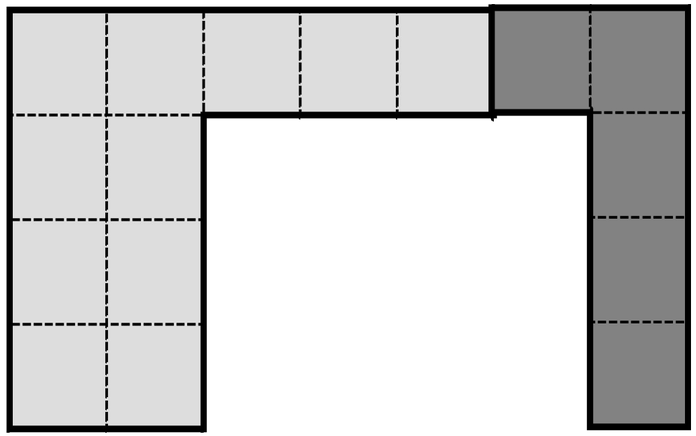
Explain why Antoni's perimeter calculation is correct.



$P = 18$ units



$P = 12$ units



$P = 28$ units

$P = 18 + 12 - 2$
$= 28$ units

Antoni

What perimeters are possible by combining the two hexagons?