Varied Fluency
Making Shapes

National Curriculum Objectives:

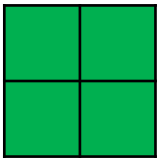
Mathematics Year 4: (4M7b) Find the area of rectilinear shapes by counting squares

Differentiation:

Developing Questions to support making squares and rectangles and then counting the area.
Expected Questions to support making rectilinear shapes using squares and then counting the area.
Greater Depth Questions to support making rectilinear shapes using squares and half squares then counting the area.

Make Shapes

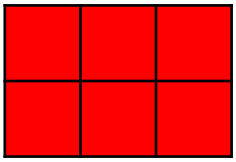
1a. Gus has made this shape using four identical square tiles.



Rearrange the tiles to make a rectangle.

D VF

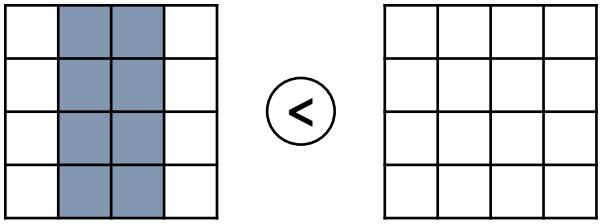
1b. Elaine has made this shape using six identical square tiles.



Rearrange the tiles to make a different rectangle.

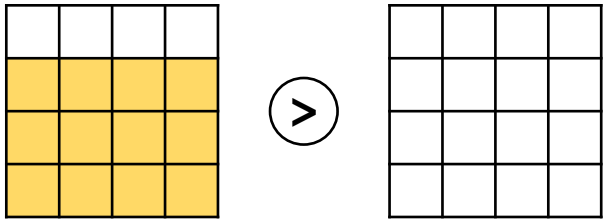
D VF

2a. Create a rectangle to make the inequality statement correct.



D VF

2b. Create a rectangle to make the inequality statement correct.



D VF

3a. True or false?

You can make a square with 8 square tiles.

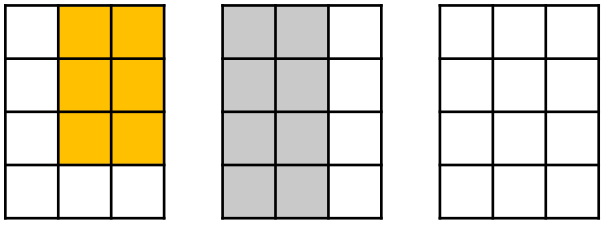
D VF

3b. True or false?

You can make a rectangle with 7 square tiles.

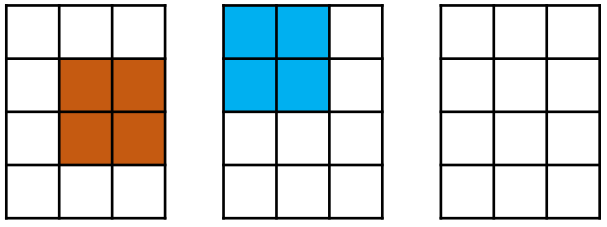
D VF

4a. Lois wants to create three different rectangles using 18 tiles. She has completed two. Create a shape with the remaining tiles.



D VF

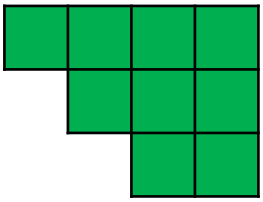
4b. Peter wants to create three different rectangles using 16 square tiles. He has completed two. Create a shape with the remaining tiles.



D VF

Make Shapes

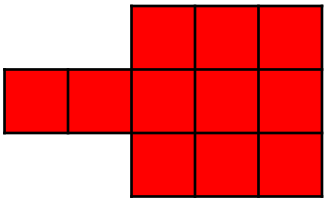
5a. Justin has made this shape using nine identical square tiles.



Rearrange the tiles to make a different 8-sided shape.

E VF

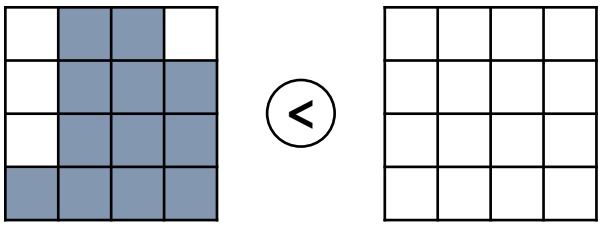
5b. Cara has made this shape using eleven identical square tiles.



Rearrange the tiles to make a different 8-sided shape.

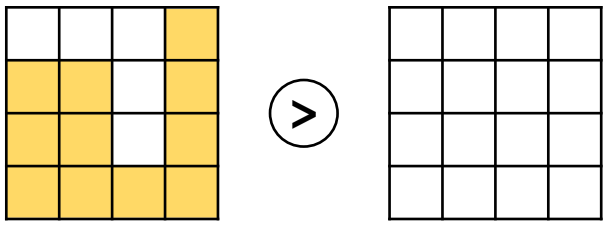
E VF

6a. Create a rectilinear shape to make the inequality statement correct.



E VF

6b. Create a rectilinear shape to make the inequality statement correct.



E VF

7a. True or false?

You can make a 6-sided shape with 5 square tiles.

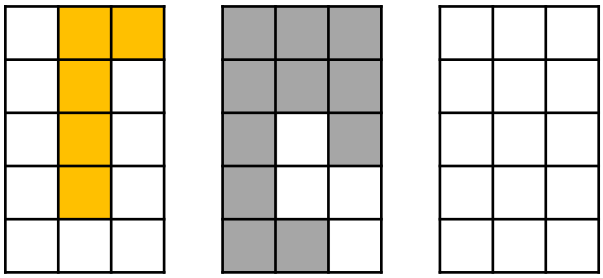
E VF

7b. True or false?

You can make a 5-sided shape with 7 square tiles.

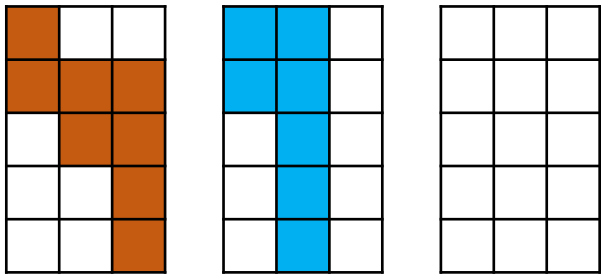
E VF

8a. Brad wants to create three different rectilinear shapes using 26 square tiles. He has completed two. Create a shape with the remaining tiles.



E VF

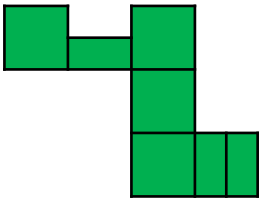
8b. Sinead wants to create three different rectilinear shapes using 23 square tiles. She has completed two. Create a shape with the remaining tiles.



E VF

Make Shapes

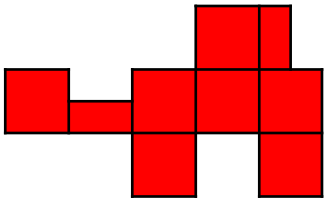
9a. Zander has made this shape using 4 square tiles and 3 half square tiles.



Rearrange the tiles to make a 10-sided shape.

GD VF

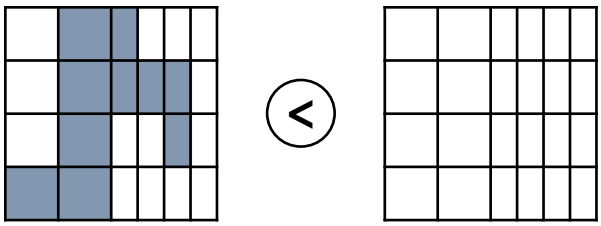
9b. Maryum has made this shape using 7 square tiles and 2 half square tiles.



Rearrange the tiles to make a 12-sided shape.

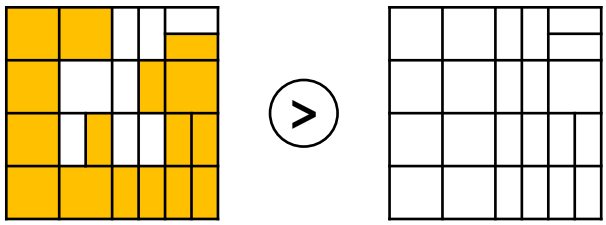
GD VF

10a. Create a rectilinear shape to make the inequality statement correct.



GD VF

10b. Create a rectilinear shape to make the inequality statement correct.



GD VF

11a. True or false?

You can make an irregular hexagon with 3 square tiles and 2 half square tiles.

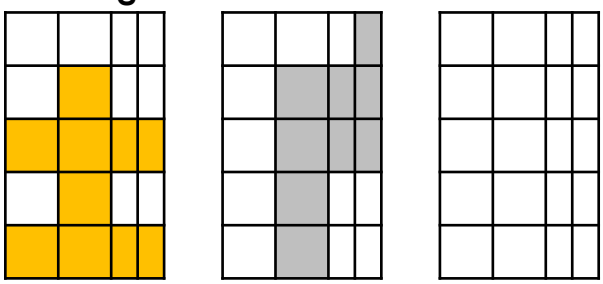
GD VF

11b. True or false?

You can make an irregular hexagon with 2 square tiles and 3 half square tiles.

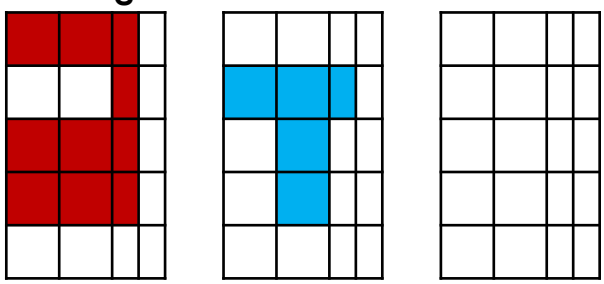
GD VF

12a. Bruce wants to create three different rectilinear shapes using 15 square tiles and 16 half square tiles. He has completed two. Create a shape with the remaining tiles.



GD VF

12b. Lizzie wants to create three different rectilinear shapes using 18 square tiles and 12 half square tiles. She has completed two. Create a shape with the remaining tiles.



GD VF

Varied Fluency
Make Shapes

Developing

1a. 

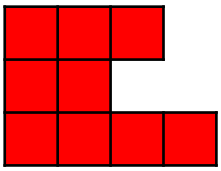
2a. Any rectangle with an area of 8 squares or more.

3a. False. Only a rectangle can be made with 8 squares.

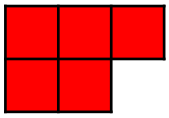
4a. Any shape with an area of 4 squares.

Expected

5a. Various answers, for example:



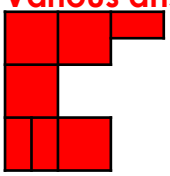
6a. Any shape with an area of 13 squares or more.

7a. True: 

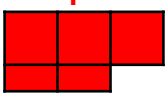
8a. Any shape with an area of 10 squares.

Greater Depth

9a. Various answers, for example:



10a. Any shape with an area of more than 7 and a half squares.

11a. True: 

12a. Any shape with an area of 5 squares and 7 half squares.

Developing

1b. 

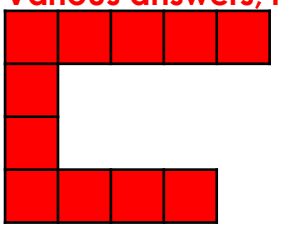
2b. Any rectangle with an area of fewer than 12 squares.

3b. True. A 7 x 1 rectangle.

4b. Any shape with an area of 8 squares.

Expected

5b. Various answers, for example:



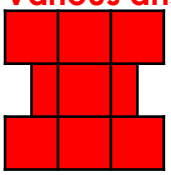
6b. Any shape with an area of fewer than 11 squares.

7b. False. 7 square tiles could make a 4-sided or 6-sided shape.

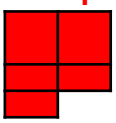
8b. Any shape with an area of 8 squares.

Greater Depth

9b. Various answers, for example:



10b. Any shape with an area of fewer than 11 and a half squares.

11b. True: 

12b. Any shape with any area of 8 squares and 7 half squares.