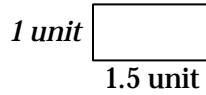


Rectangles

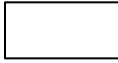
Start with the rectangle below.



Scale factor : 1
Perimeter = _____
Area = _____

How many more smaller rectangles do I need to make the next larger rep-tile figure?

(Draw a picture.)



1 + _____ = _____
Scale factor : _____
Perimeter = _____
Area = _____

How many more smaller rectangles do I need to make the next larger rep-tile figure?

(Draw a picture.)

1 + _____ + _____ = _____
Scale factor : _____
Perimeter = _____
Area = _____

How many more smaller rectangles do I need to make the next larger rep-tile figure?

(Draw a picture.)

1 + _____ + _____ + _____ = _____
Scale factor : _____
Perimeter = _____
Area = _____

How many more smaller rectangles do I need to make the next larger rep-tile figure?

(Draw a picture.)

1 + _____ + _____ + _____ + _____ = _____
Scale factor : _____
Perimeter = _____
Area = _____

The following diagram is a geometric interpretation of the above sequence using squares:

figure (the 10th rep-tile figure).

The number pattern associated with this sequence of rep-tiles is

1 (1st)

$1 + 3 = 4$ (2nd)

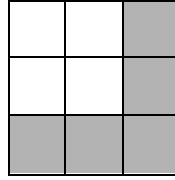
$1 + 3 + 5 = 9$ (3rd)

$1 + 3 + 5 + 7 = 16$ (4th)

$1 + 3 + 5 + 7 + 9 = 25$ (5th)

and so on until

$1 + 3 + 5 + 7 + 9 + \dots + 19 = 100$ (10th).



Find the area and the perimeter of 10th rep-tile. Justify your answer.

Find the area and the perimeter of 100th rep-tile. Justify your answer.