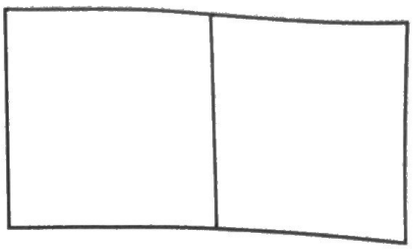
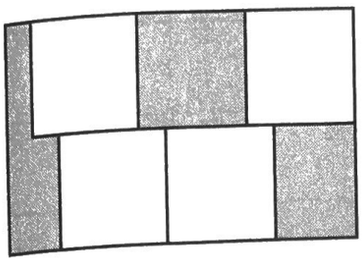
1E3-9 Shapes and Area

Two pattern block squares cover this rectangle.
The squares are the same size.
There are no gaps or overlaps.
The **area** of the rectangle is 2 squares.



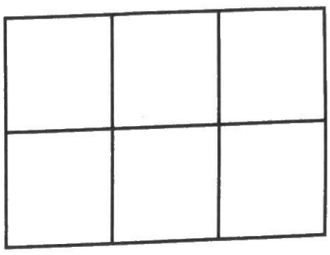
Bill measured the area of a book with squares. Write ✓ for what he did correctly. Write ✗ for what he did wrong.

a)



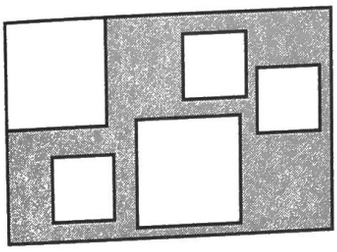
- [✓] The squares are the same size.
- [✗] The book is covered (no gaps).
- [✓] The squares do not overlap.
- [✗] The area is 4 squares.

b)



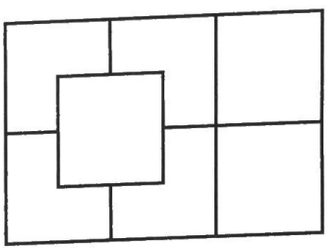
- [✓] The squares are the same size.
- [✓] The book is covered (no gaps).
- [✓] The squares do not overlap.
- [✓] The area is 6 squares.

c)



- [✗] The squares are the same size.
- [✗] The book is covered (no gaps).
- [✓] The squares do not overlap.
- [✗] The area is 5 squares.

d)

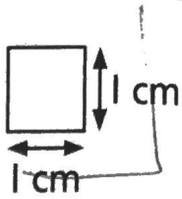


- [✓] The squares are the same size.
- [✓] The book is covered (no gaps).
- [✗] The squares do not overlap.
- [✗] The area is 7 squares.

A **square centimetre** is a square with sides 1 cm long.

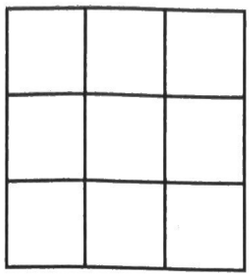
We write **cm²** for short.

You can measure area in square centimetres.



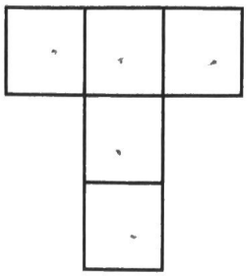
2. Find the area in square centimetres.

a)



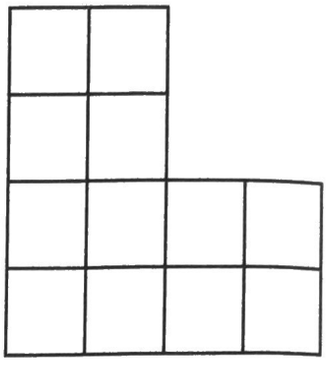
Area = 9 cm²

b)



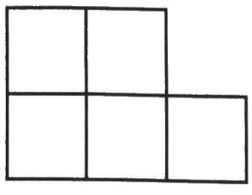
Area = 5 cm²

c)



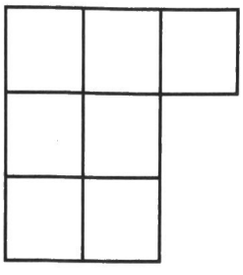
Area = 12 cm²

d)



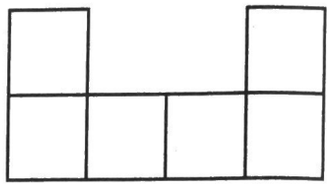
Area = 5 cm²

e)



Area = 7 cm²

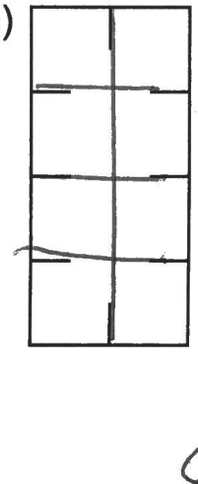
f)



Area = 6 cm²

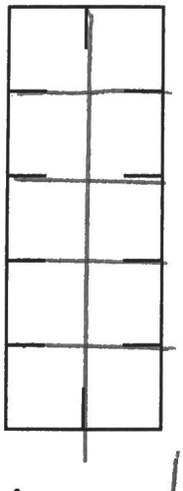
3. Use a ruler to join the marks and divide the rectangle into square centimetres. Then find the area in cm².

a)



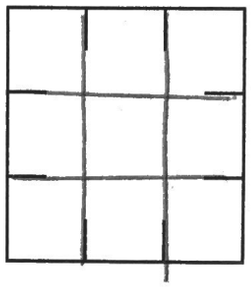
Area = 8 cm²

b)



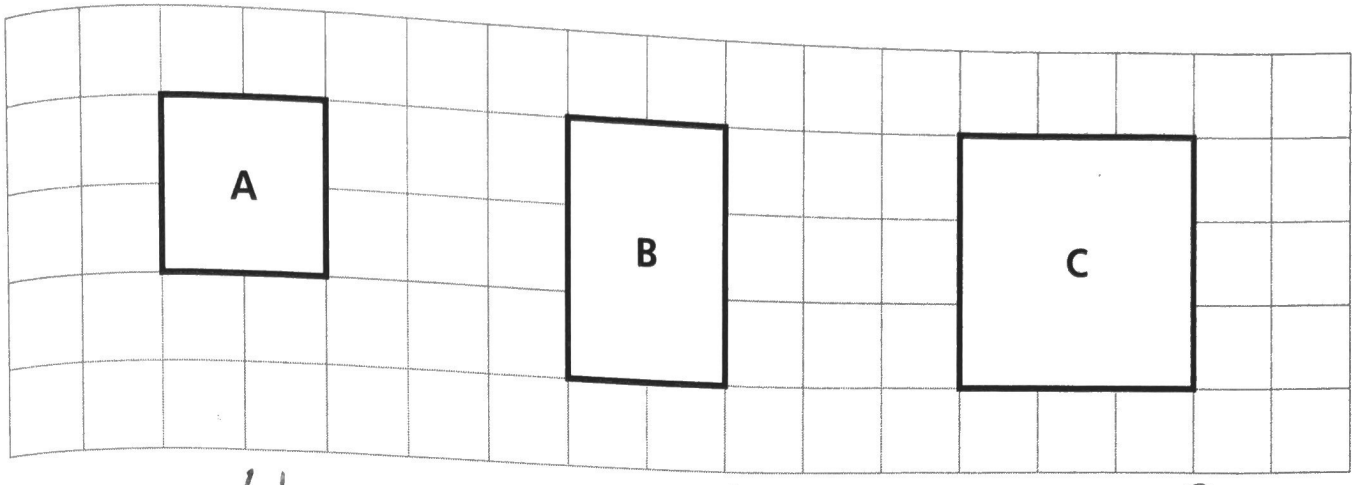
Area = 10 cm²

c)



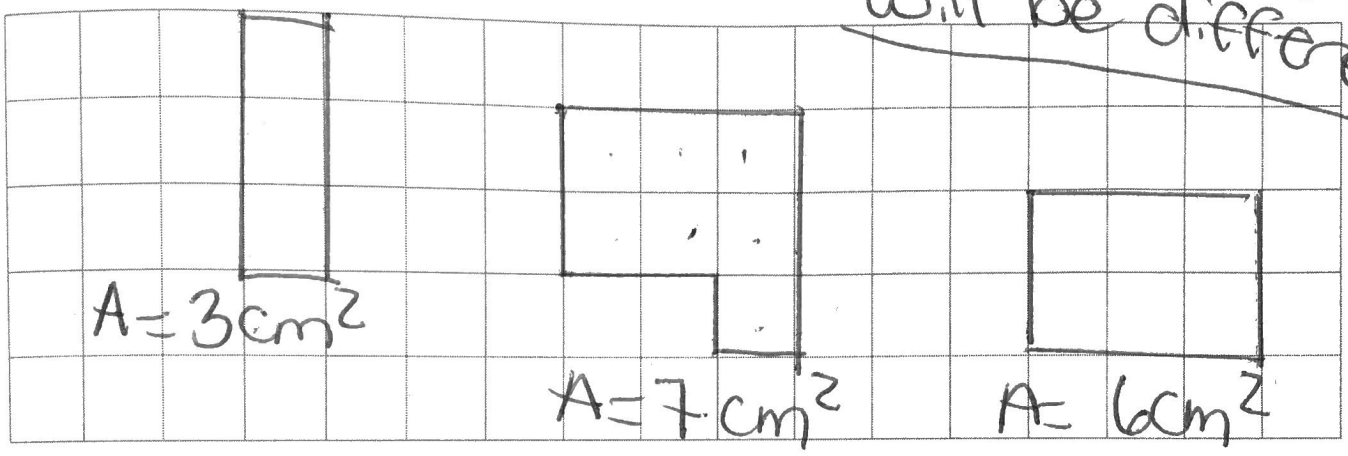
Area = 9 cm²

4. The small squares on the grid are each 1 cm^2. Find the areas in square units.

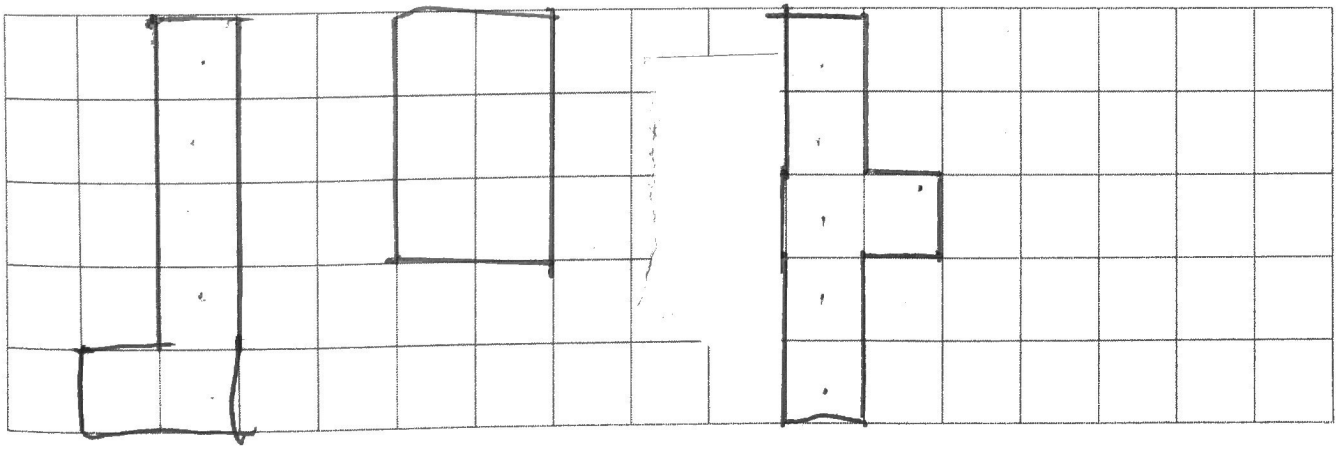


Area of A = 4 cm^2 Area of B = 6 cm^2 Area of C = 9 cm^2

5. Draw 3 shapes on the grid lines. Find the area of each shape. your answers will be different



6. a) Draw 3 different shapes on the grid lines, each with an area of 6 cm^2.



b) Do 2 polygons need to be the same size and shape to have the same area? Explain. NO, the have to have the same number of squares but do not have to be same shape.

ME3-12 Multiplying to Find Area

1	2	3	4	5	6	7	8	9	10	10
2										20
3										30
4										40
5										50

10 square units in each row

5 rows

50 square units

1. Count the number of square units in each row. Count the number of rows. Write the area in square units.

a)

1	2	3	4	5	5
2					10
3					15
4					20

5 square units in each row

4 rows

Area = 20 square units

b)

				4
				8
				12
				16
				20
				24

4 square units in each row

6 rows

Area = 24 square units

c)

			3
			6
			9
			12

3 square units in each row

4 rows

Area = 12 square units

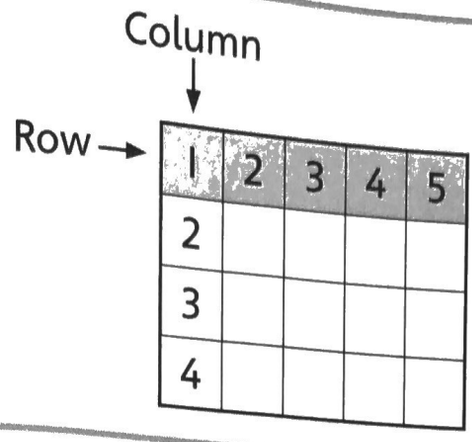
d)

						6
						12
						18

6 square units in each row

3 rows

Area = 18 square units



4 rows

5 columns

$4 \times 5 = 20$

The area is 20 square units.

2. Count the number of rows and the number of columns. Multiply to find the total number of square units.

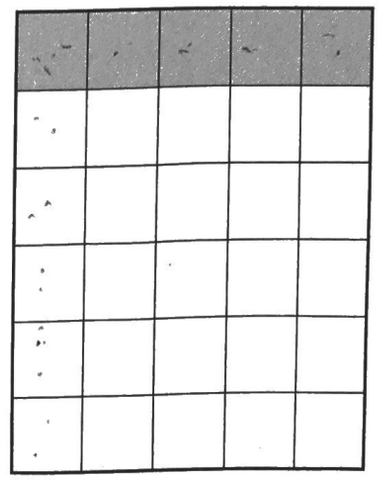
a)

1	2	3	4
2			
3			
4			
5			

5 rows 4 columns

Area = $5 \times 4 = 20$ square units

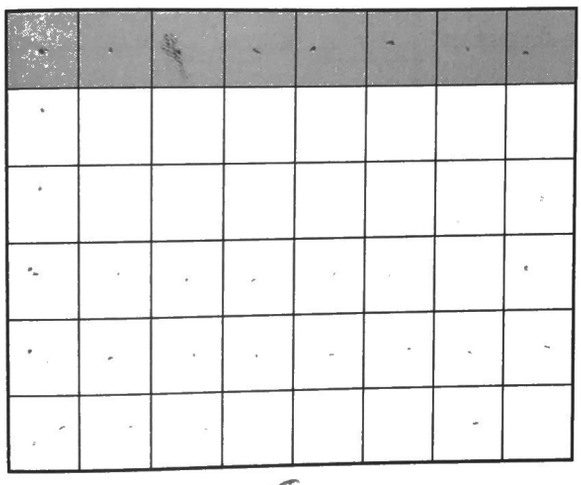
b)



6 rows 5 columns

Area = $6 \times 5 = 30$ square units

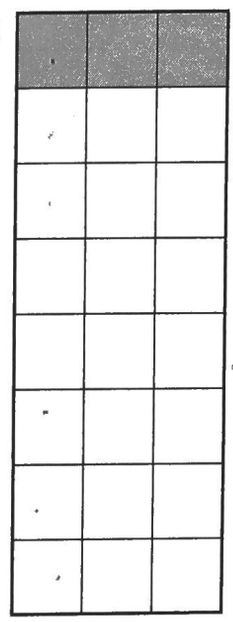
c)



6 rows 8 columns

Area = $6 \times 8 = 48$ square units

d)



8 rows 3 columns

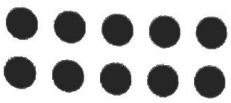
Area = $8 \times 3 = 24$ square units

Name: Answer key Date: _____

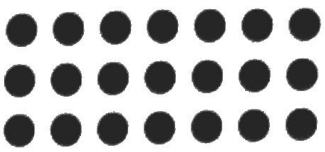
Math Check-In

PLEASE COMPLETE ON YOUR OWN WITHOUT PARENT SUPPORT

1. Write the correct multiplication sentence for these arrays.

a) 

2x5

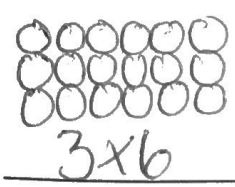
b) 

3x7

[can't be 5x2 or 7x3 that is incorrect.]

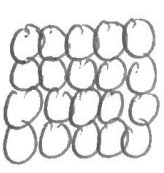
2. Draw an array AND write a multiplication sentence.

a) 3 rows 6 dots in each row



3x6

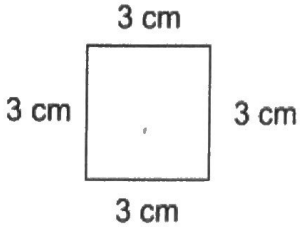
b) 4 rows 5 dots in each row



4x5

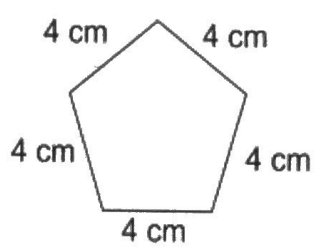
3. Write a multiplication sentence for perimeter. Then find the perimeter.

a)



4x3=12cm

b)

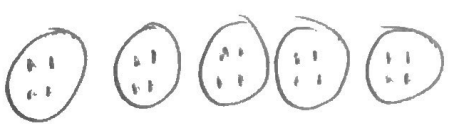


5x4=20cm

↖ Have to put units in answer 5

4. Sara bought 5 packages of pens. Each package contains 4 pens. How many pens did she buy?

5x4=20 she bought 20 pens



Name:_____ Date:_____

5. Finish the multiplication chart.

×	1	2	3	4	5
1	1	2	3	4	5
2	2	4	6	8	10
3	3	6	9	12	15
4	4	8	12	16	20
5	5	10	15	20	25

6. Using the multiplication chart find the answers for the following:

a) 4x4= 16 b) 3x2= 6 c) 5x4= 20 d) 5x3= 15