YEAR 4- MATHS

WB- Monday 15th June

We are using Oaks National Academy this week, the topic is area. Each day you will have a different video link and then the work sheets will be attached as usual. Remember to practise your times tables with games like hit the button to increase your speed.

Monday- Area part 1- Estimating.

Tuesday- Area part 2-Calculating.

Wednesday- Area part 3- cm2.

Thursday- Area part 4- m2.

Friday- Area part 5- Application.

Monday- Area part 1- Estimating.

https://classroom.thenational.academy/lessons/area-part-1-estimating/

To Start

Convert these measures from cm to m and m to cm. Take care with the fraction questions here!

cm	m	cm	m (fraction)
	2		1/2m
350			1/4m
6700		75cm	
	24	20cm	

Remember: 1m = 100cm

Moving On

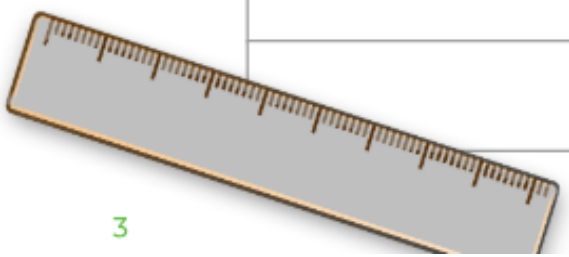
Can you decide which of these measurements would be a measure of **perimeter, length** or **area.**
Tick the correct box for each

Thing to measure	perimeter	length	area
How much fencing would go around the playground			
How much carpet is needed for a room			
How long a pencil is			
How much wallpaper is needed for one of your bedroom walls			
How much border is needed for a classroom display			
How far a kangaroo can jump			

Main task

Work out the area of your objects after making an estimate in m and cm

Object	Estimate units²	Actual units²



Tuesday- Area part 2-Calculating.

https://classroom.thenational.academy/lessons/area-part-2-calculating/

To Start

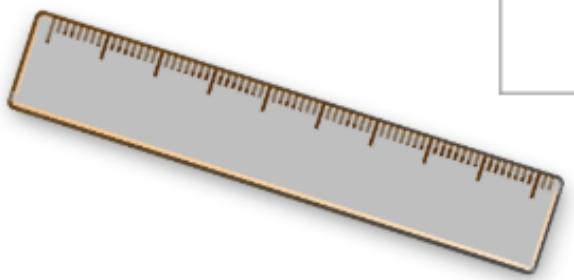
Double and halve these numbers

Number	Double	Number	Half
12			10
	70		16
670		150	
	360	3000	
10.5		31	

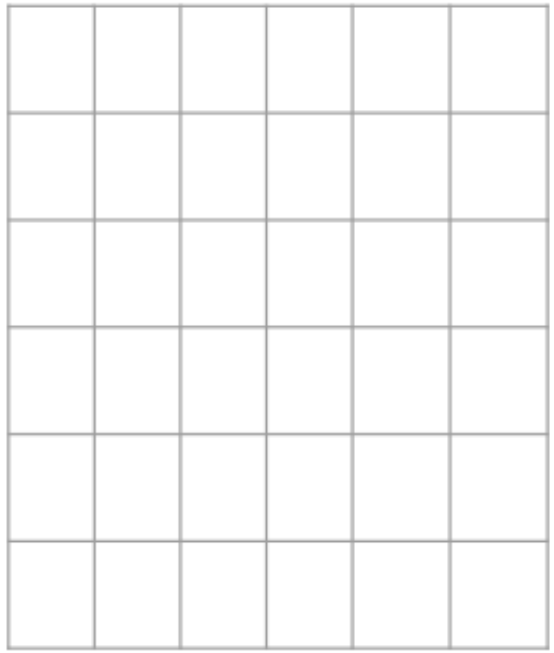
Double = multiply by 2, Half = divide by 2

Moving On

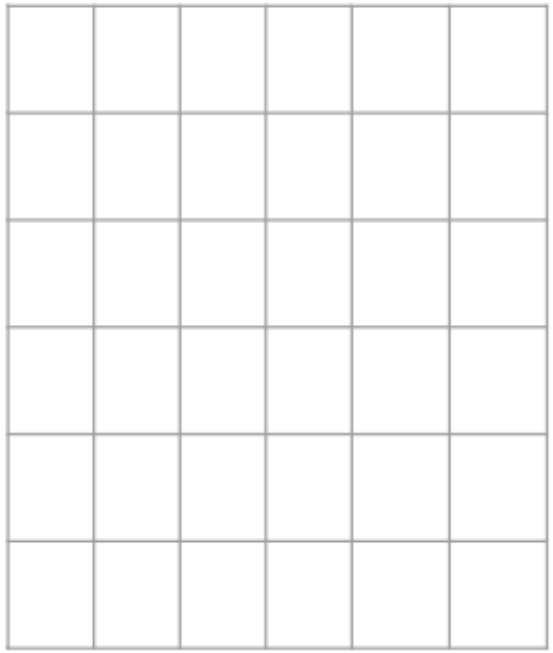
Shade squares for each of the instructions.
For each, complete the sentence given below



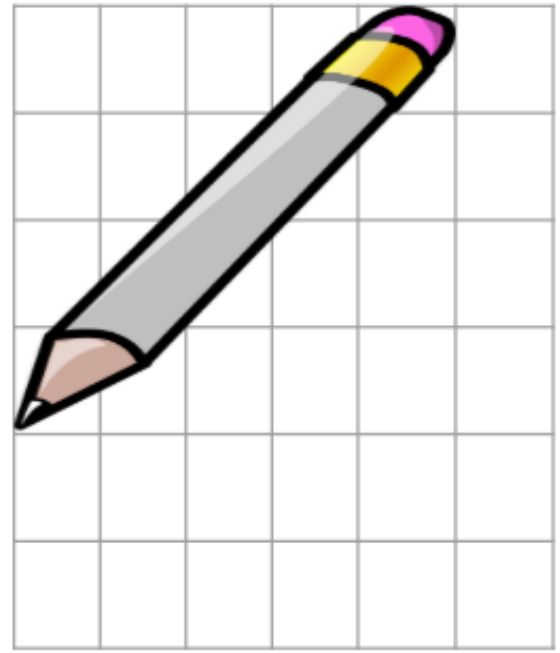
3 by 4



6 by 3



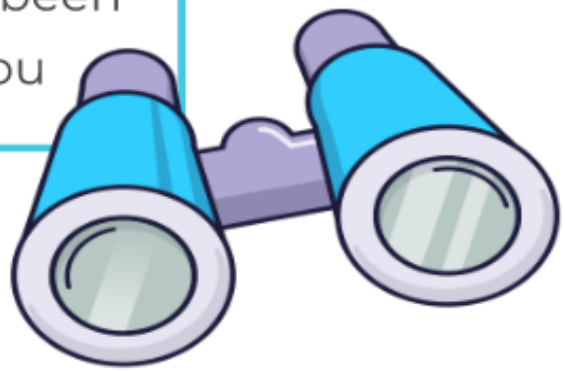
5 by 4

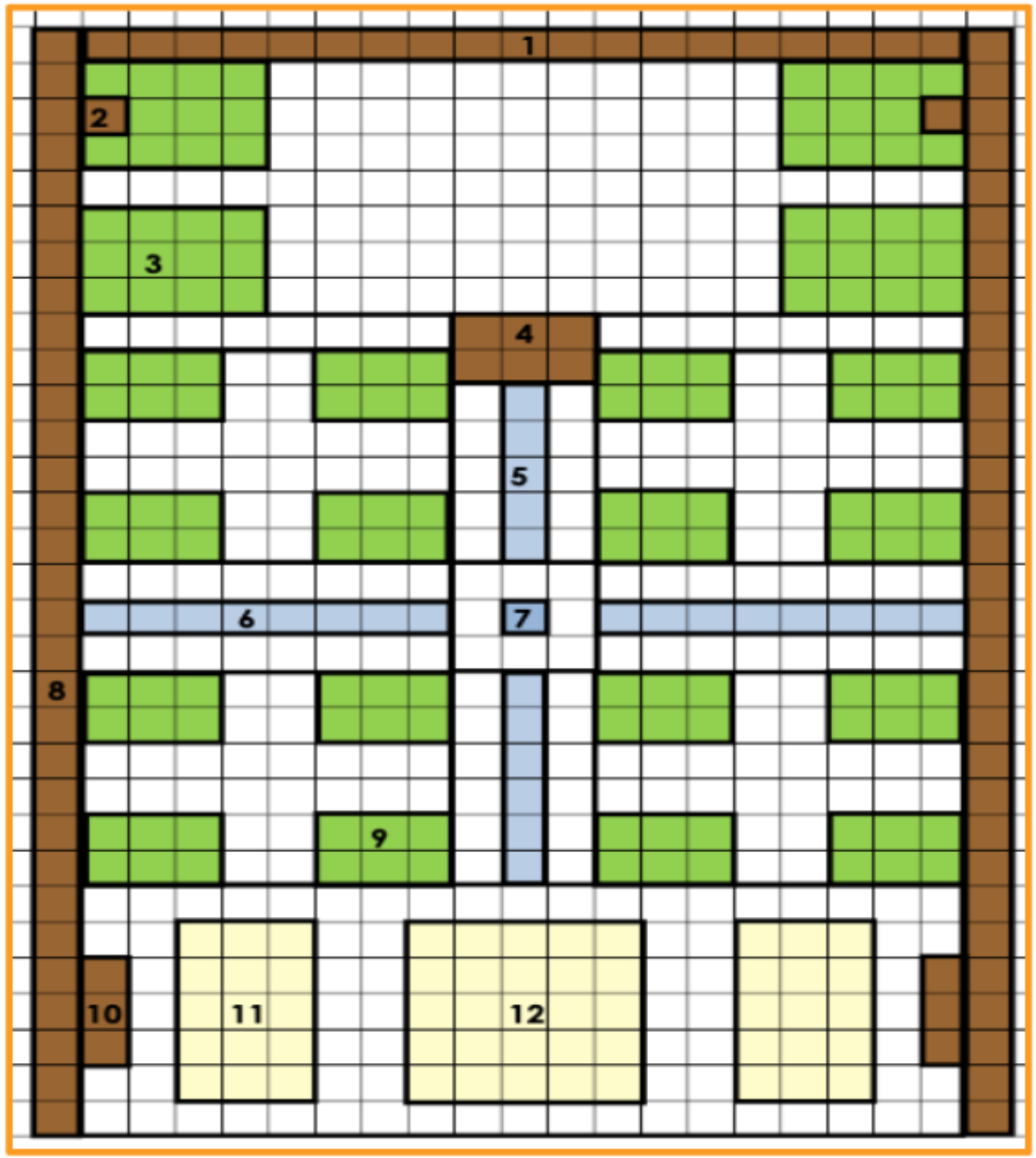


I have ____ rows of ____ my total is _____
The area is _____^{2}

Main Task

Calculate the area of all of the numbered sections on this floor plan and complete the table with the information. An example has been done for you

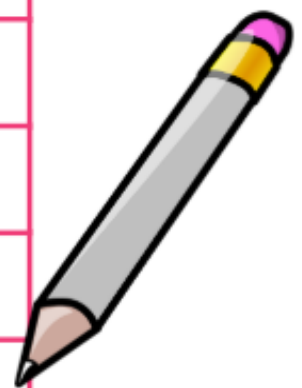


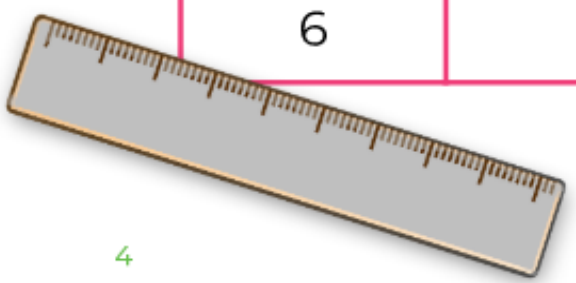


Main task

Calculate the area of each shape . To challenge yourself, can you also work out the perimeter?

Shape	Units²	Shape	Units²
1		7	
2		8	
3		9	
4		10	1 x 3 = **3 units²**
5		11	
6		12	





Wednesday- Area part 3- cm2.

https://classroom.thenational.academy/lessons/area-part-3-cm2/

To Start

Can you calculate fractions of an amount? Remember ‘divide by denominator, times by numerator’.

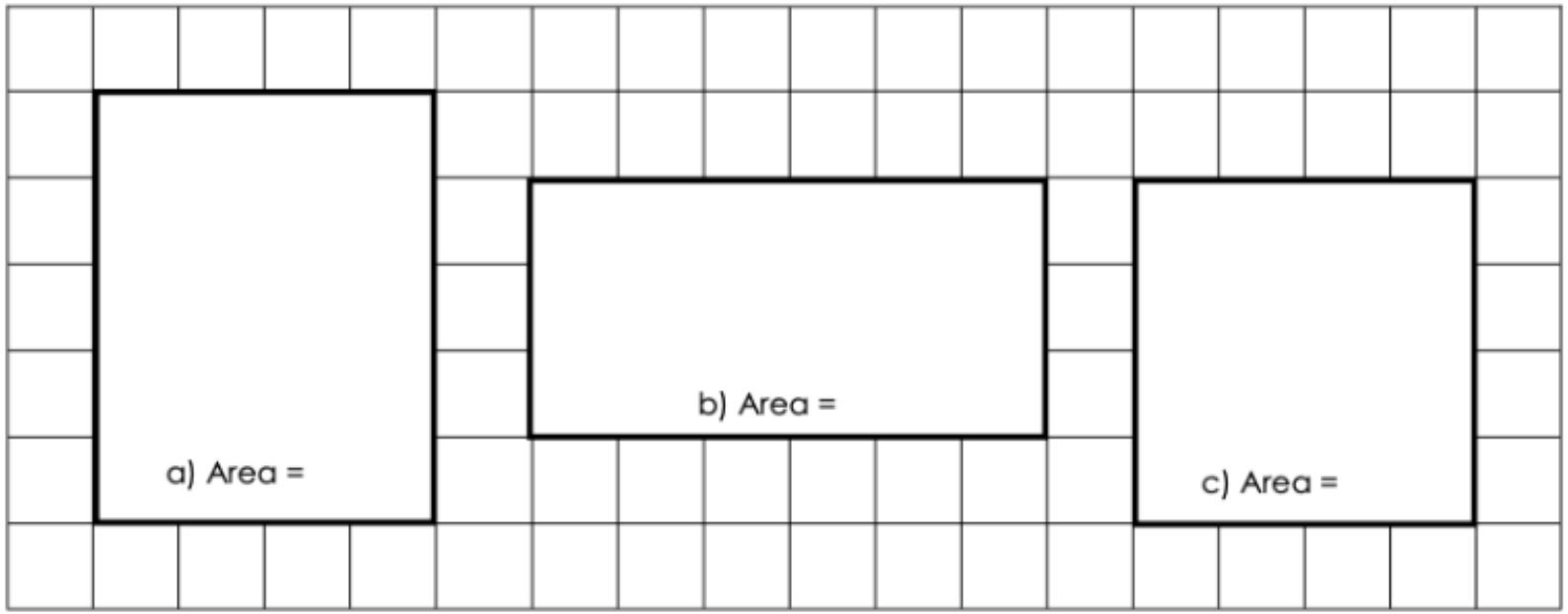
Fraction	of	Answer
1/2	28	
1/4	40	
1/5	65	
3/4	24	
4/6	72	
8/9	99	
7/12	108	

Moving On

Can you estimate the area of each of the shapes?

Comparing areas in cm^2

1) I estimate rectangle ☐ has the largest area, and rectangle ☐ has the smallest area.



☐ = 1 cm^2

Were both of your estimates correct?_____

If not, how do you know:

_____

_____

_____

_____

_____

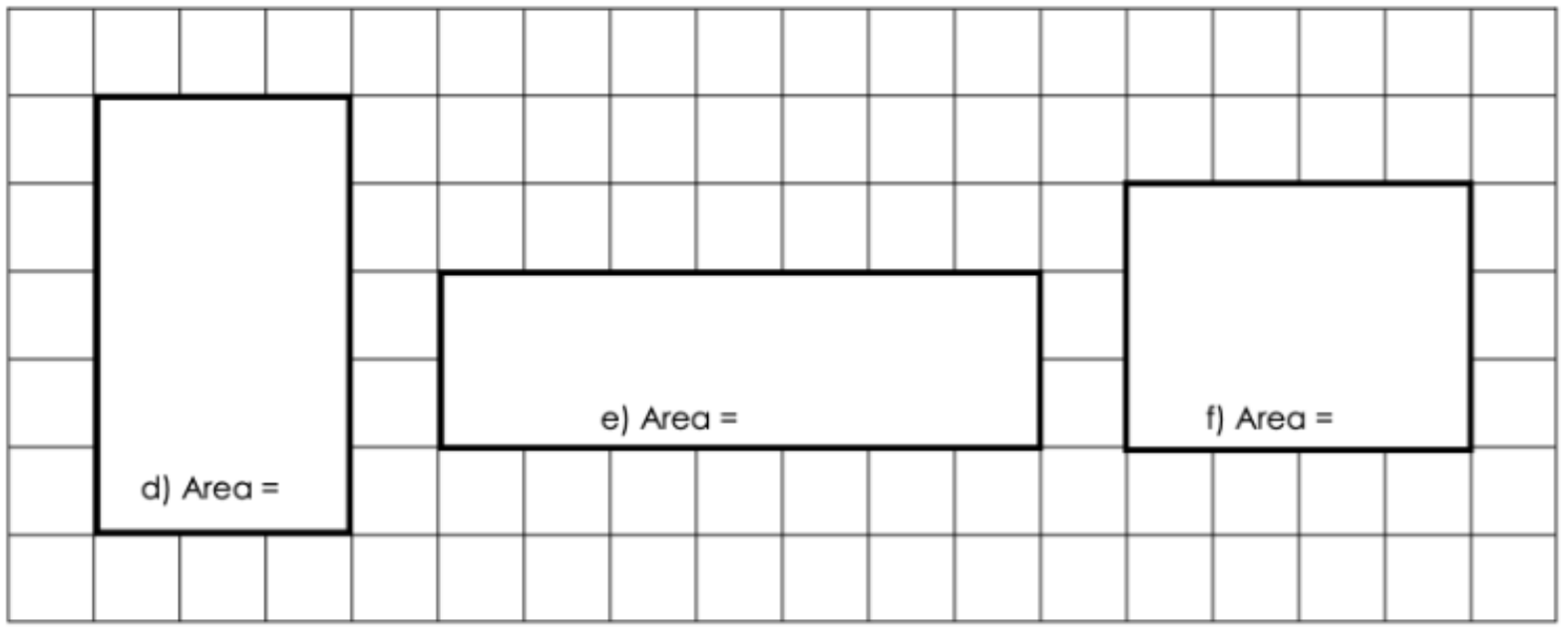
_____

_____

Moving On

Can you estimate the area of each of the shapes?

2) I estimate rectangle ☐ has the largest area, and rectangle ☐ has the smallest area.



☐ = 1 cm^2

Were both of your estimates correct?_____

If not, how do you know:

_____

_____

_____

_____

_____

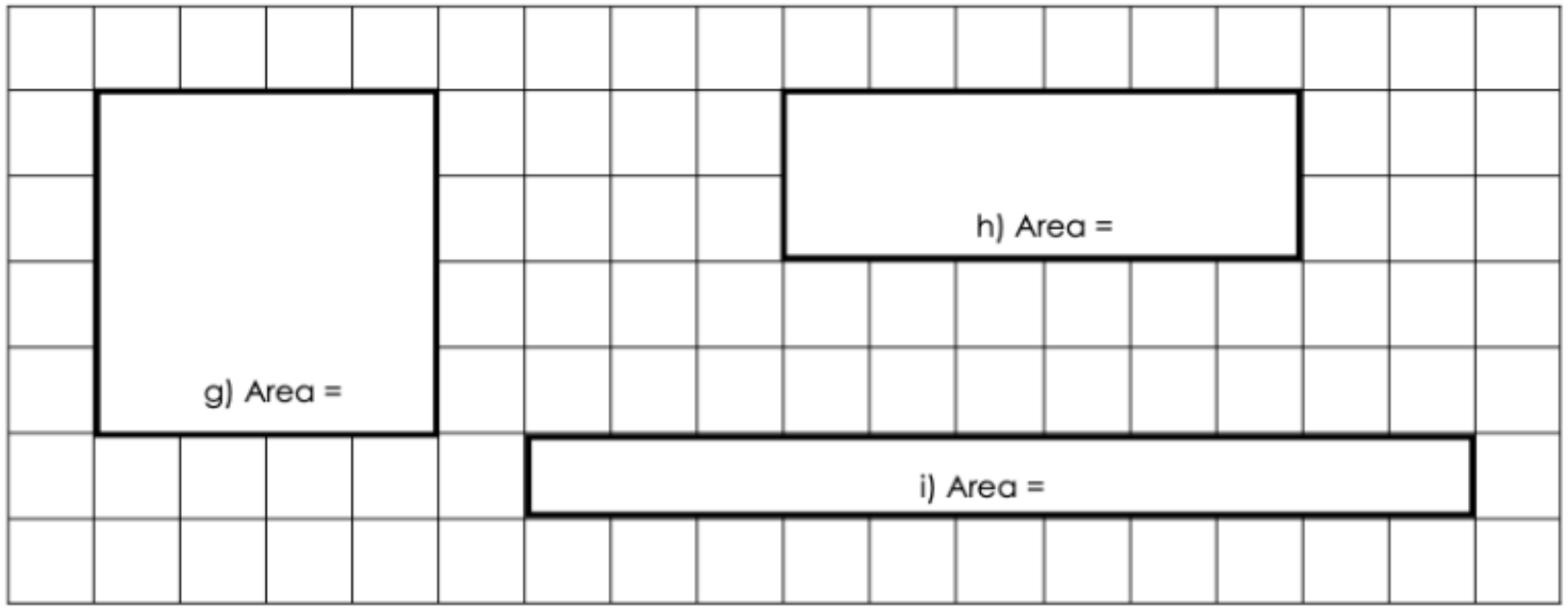
_____

_____

Moving On

Can you estimate the area of each of the shapes?

3) I estimate rectangle ☐ has the largest area, and rectangle ☐ has the smallest area.



☐ = 1 cm²

Were both of your estimates correct?_____

If not, how do you know:

_____

_____

_____

_____

_____

_____

_____

Main task

Work out the area of each of these rectangles in cm²

5cm

3 cm

Area =

7 cm

9 cm

Area =

30 cm

20 cm

Area =

6 cm

5c m

Area =

12 cm

8 cm

Area =

25 cm

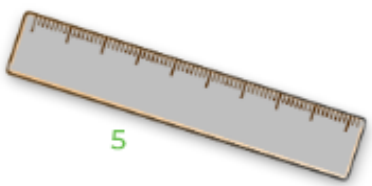
10 cm

Area =

15 cm

Area =

2 cm



Thursday- Area part 4- m2.

https://classroom.thenational.academy/lessons/area-part-4-m2/

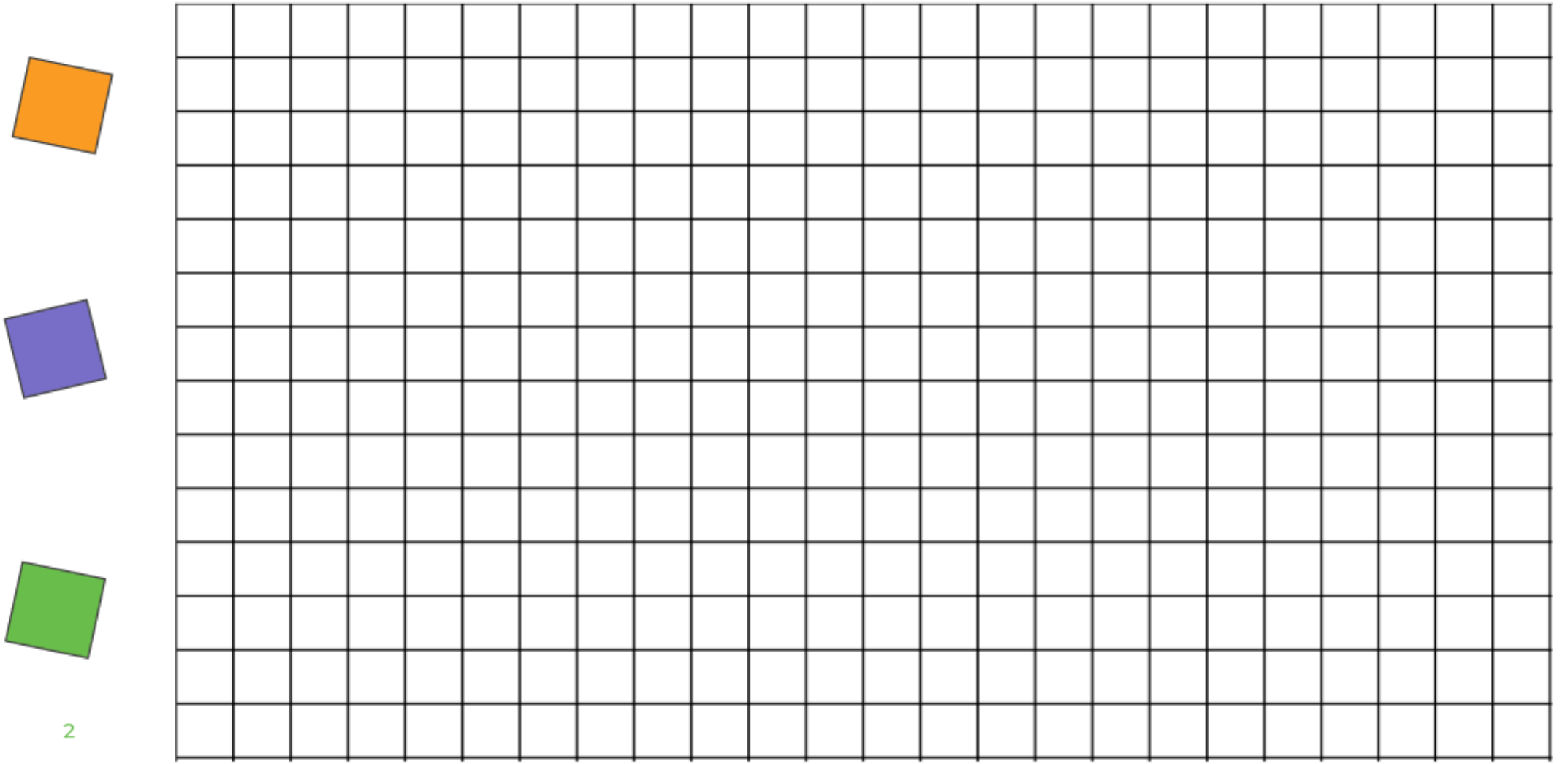
To Start

Can you calculate fractions of an amount? Remember ‘divide by denominator, times by numerator’.

Fraction	of	Answer
2/5	45	
3/4	60	
5/7	56	
2/9	90	
7/8	72	
5/6	600	
9/12	240	

Moving On

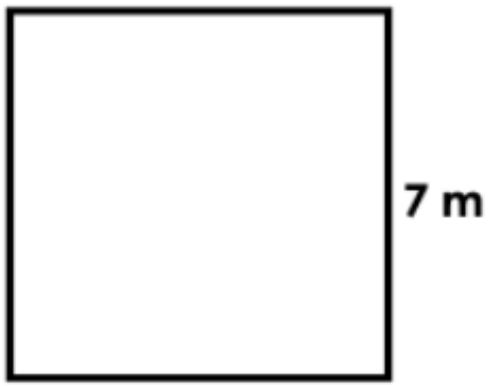
Use the space below to draw different shapes with an area of 6 units^2?



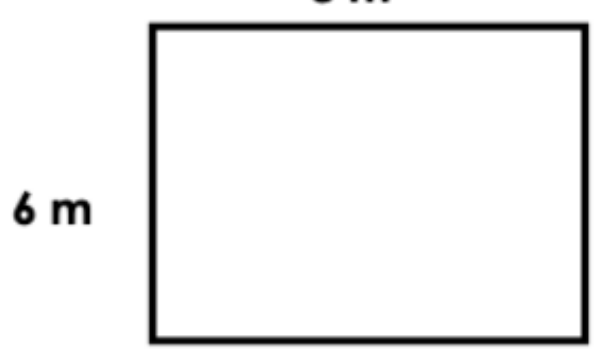
Moving On

Can you calculate the area of each rectangle and circle the largest in each pair?

a)



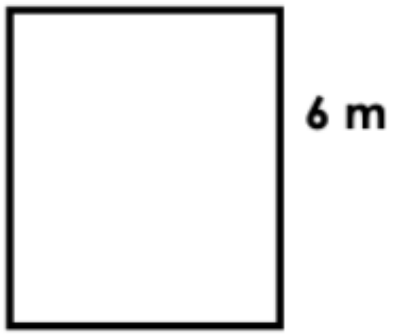
Area =



Area =

b)

Area =

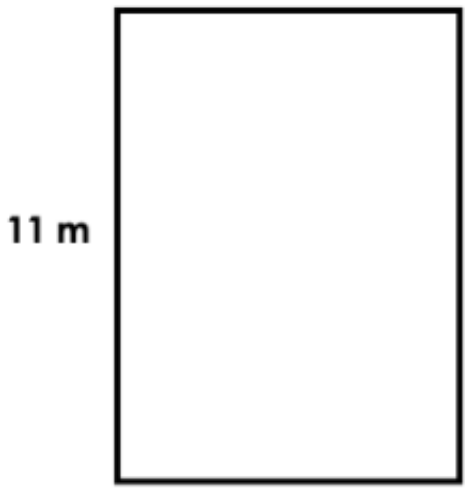


Area =

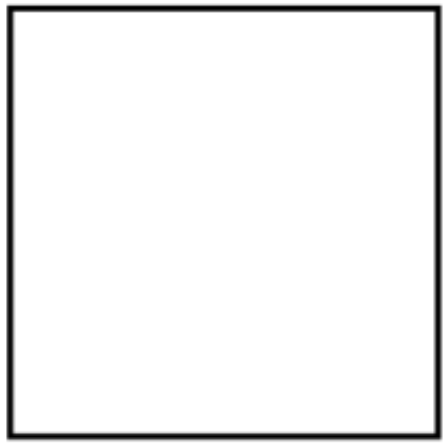
Moving On

Can you calculate the area of each rectangle and circle the largest in each pair?

c)



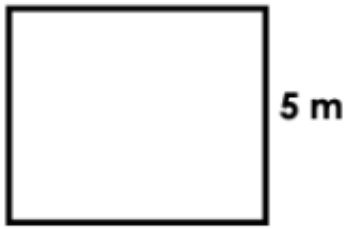
Area =



Area =

d)

Area =



Area =

Main task

Work out the area of each of these rectangles in m²

5cm

3 cm

Area =

7 cm

9 cm

Area =

12 cm

8 cm

Area =

6 cm

5c m

Area =

Use the area to calculate the missing side

?m

3 m

Area = 36m²

Side =

? m

40 m

Area = 1200m²

Side =

9 m

? m

Area = 54m²

Side =

? m

70 m

Area = 5600m²

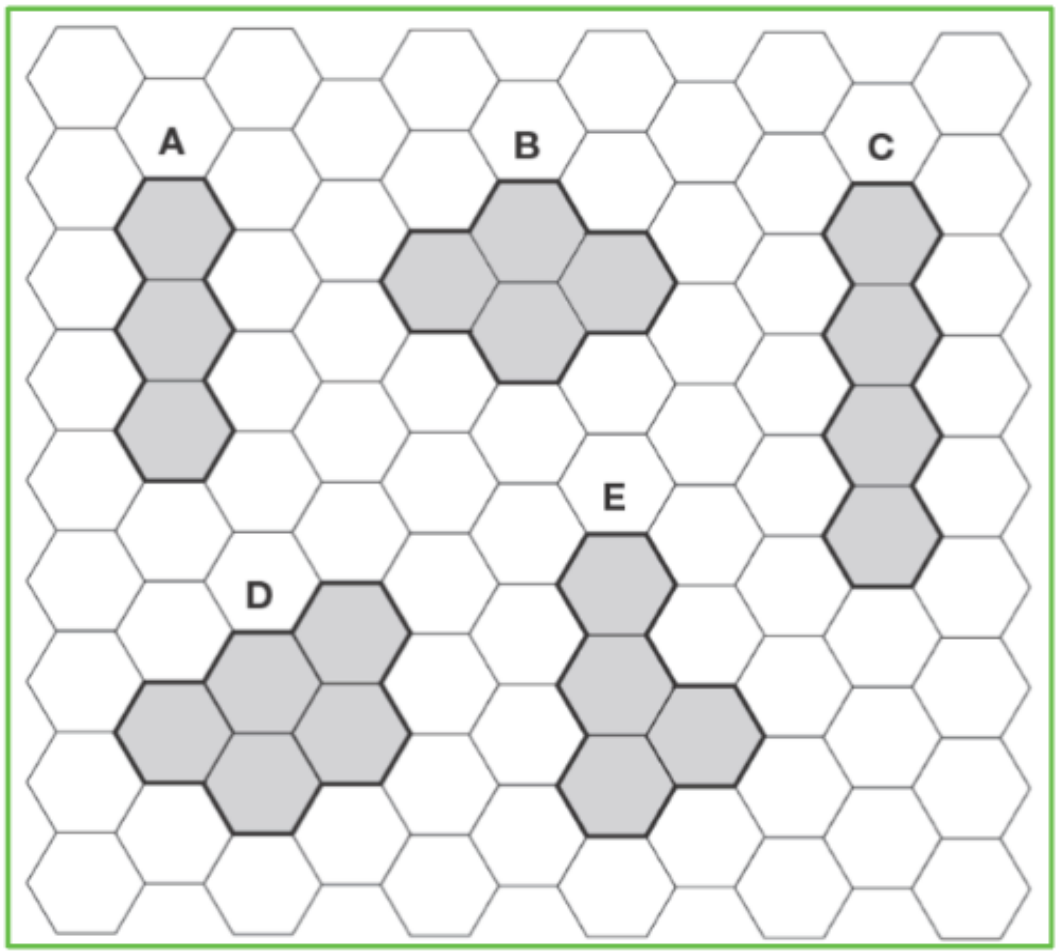
Side =

Friday- Area part 5- Application.

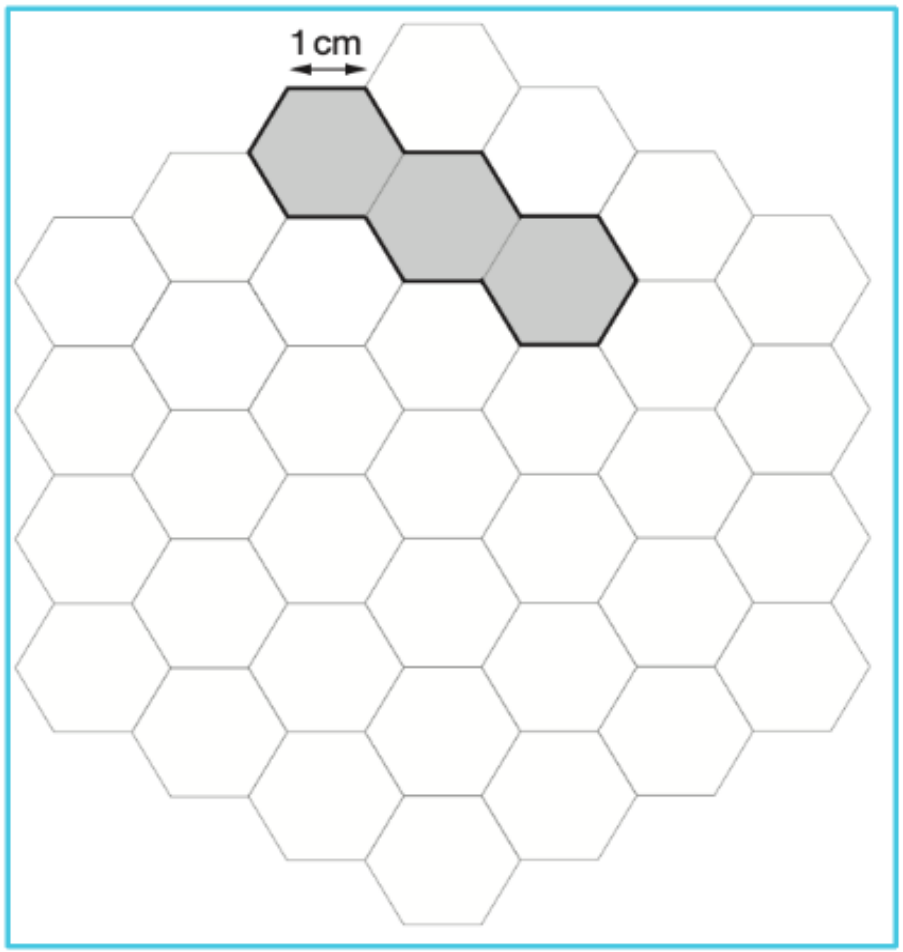
https://classroom.thenational.academy/lessons/area-part-5-application/

To Start

Here are 5 shapes on a grid. Which has the longest perimeter? Circle it.

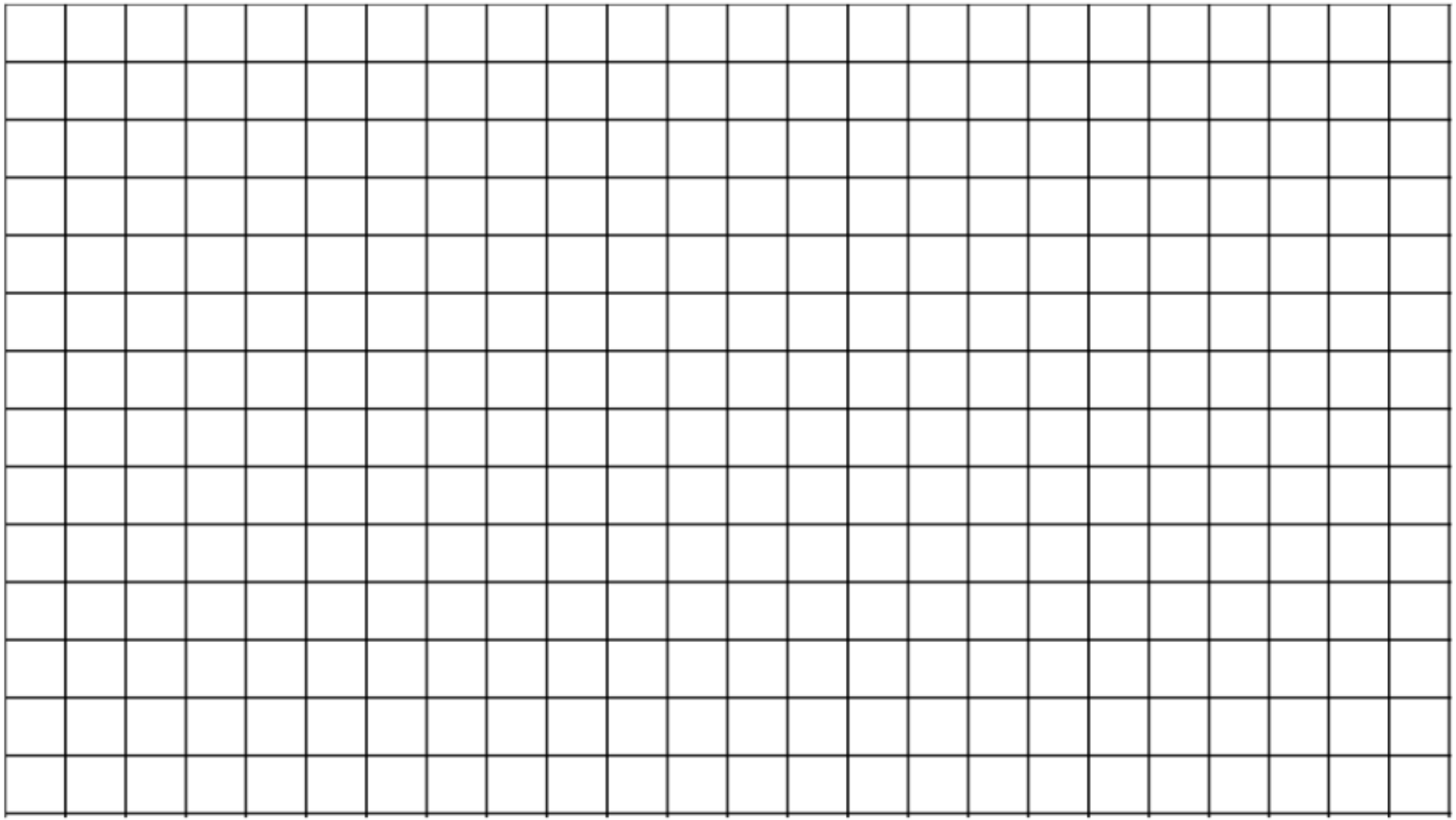


Find the perimeter of the shape and draw another with the same perimeter



Moving On

Use the space below to draw different shapes with an area of 6 units^2?



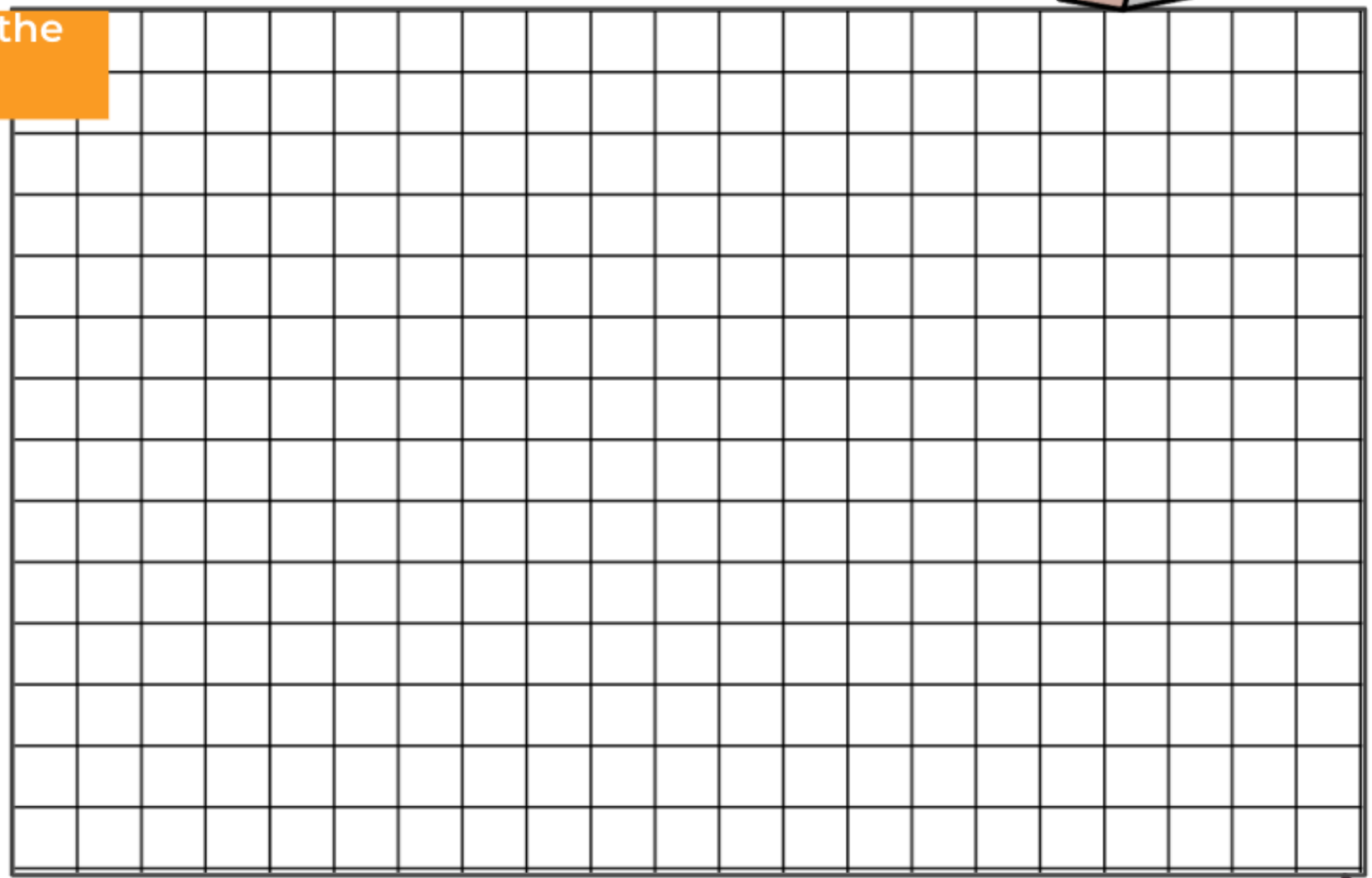
Main task 1

Complete these 3 tasks on the grid here.

Draw a shape which has a greater perimeter than area.

Draw a shape that has the same area and perimeter.

Draw a shape that has a greater area than perimeter.

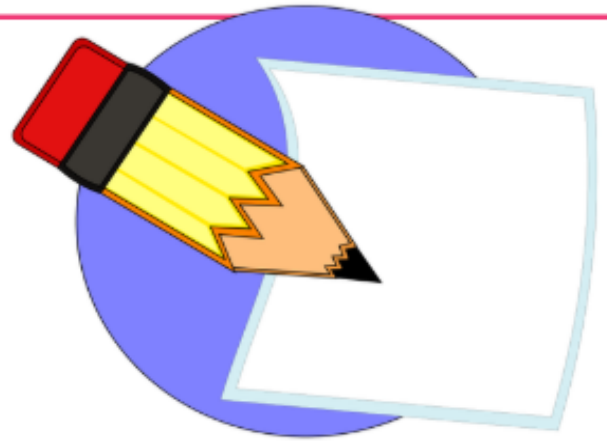


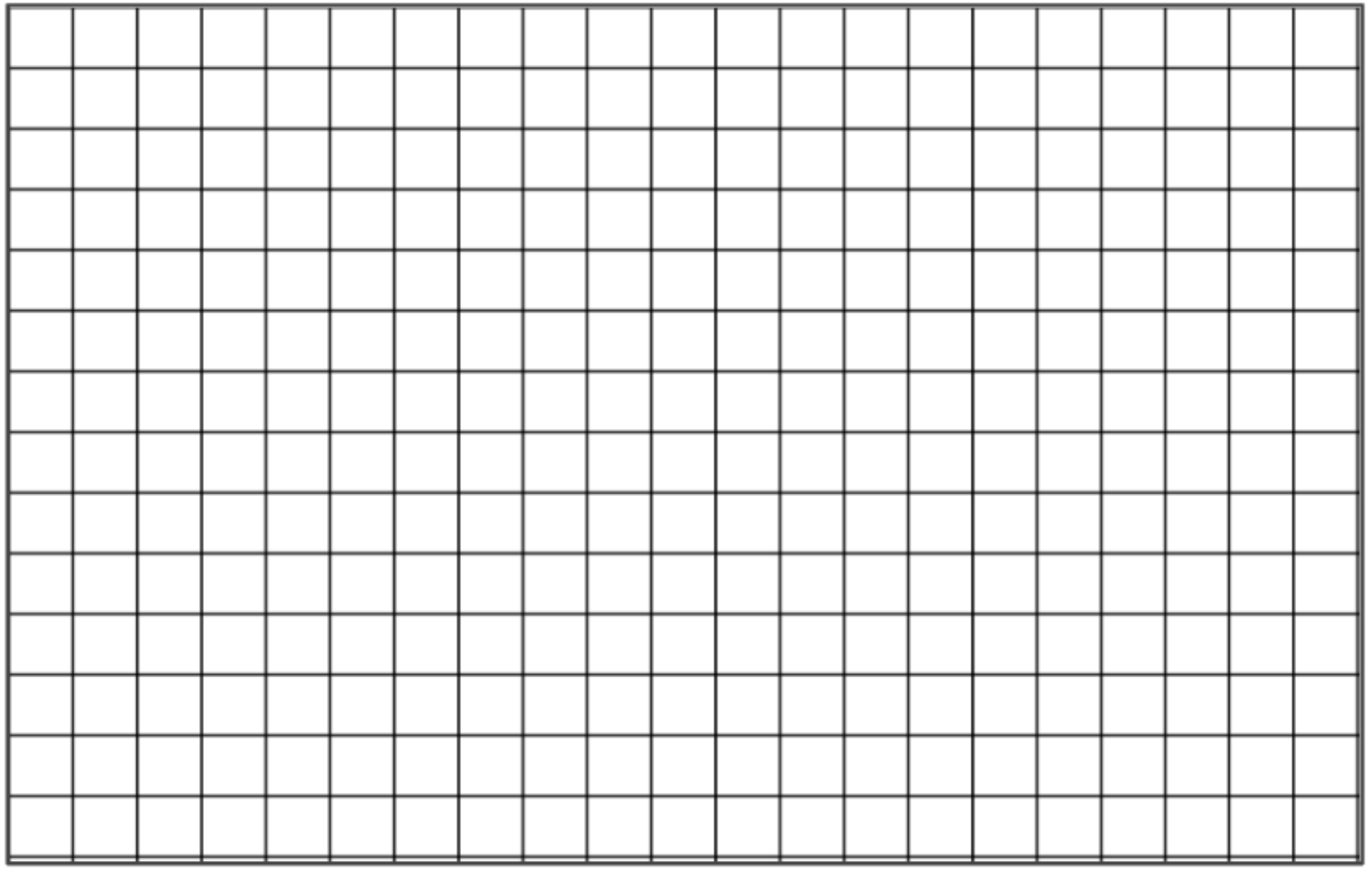
Main task 2

Complete the task on the grid here.

Can you find 5 ways to draw a rectangle whose perimeter is 16 units?

Tick the one which has the largest area.



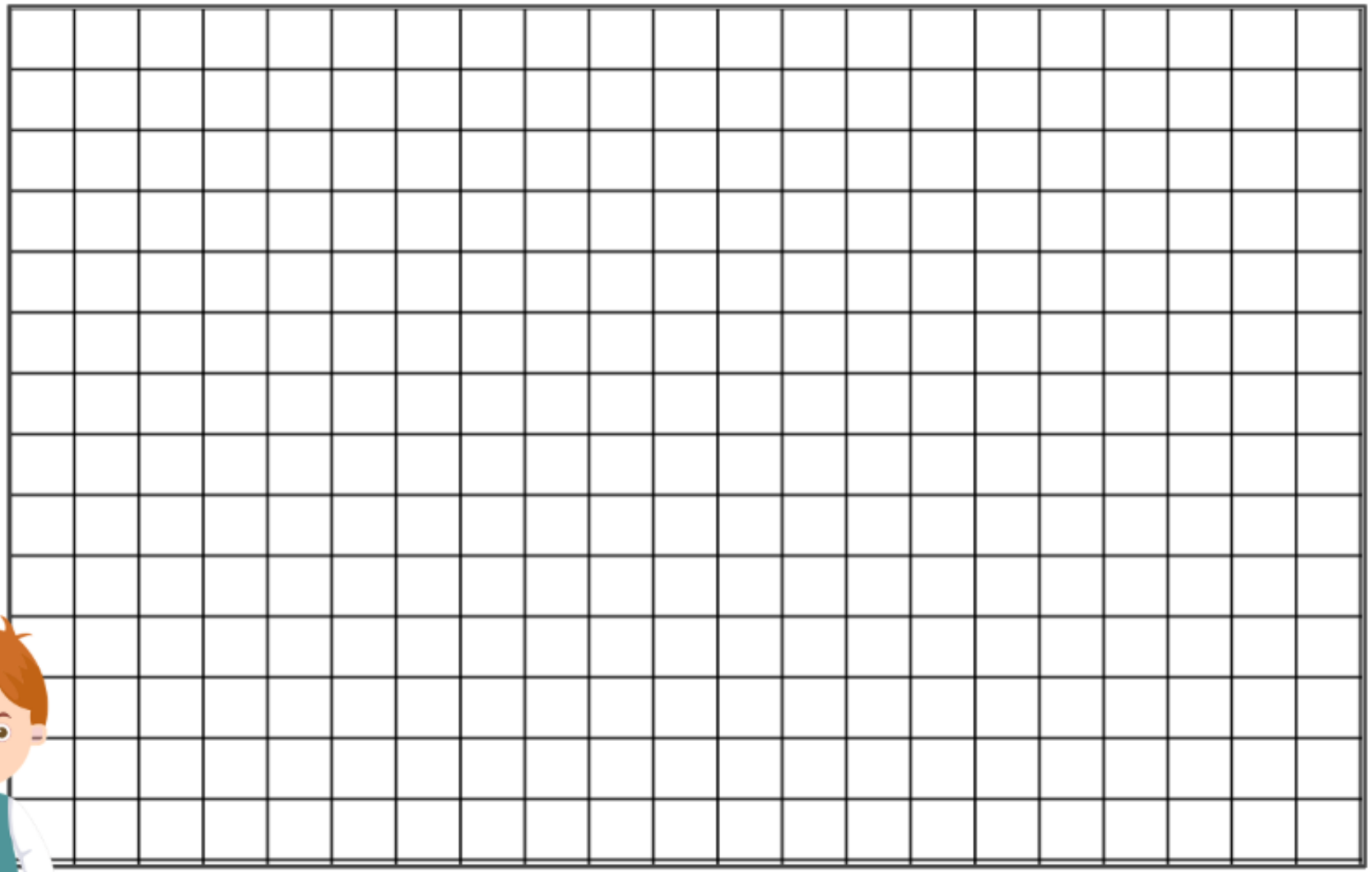


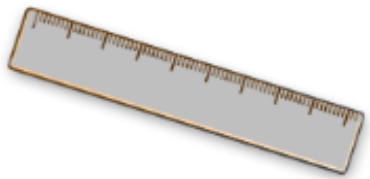
Main task 3

Complete the tasks on the grid here.

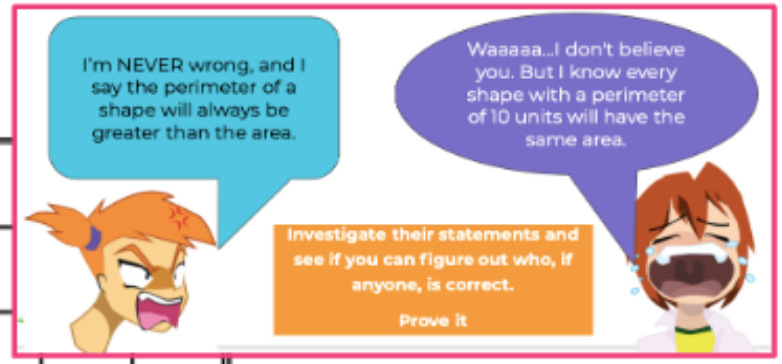
The perimeter of a rectangle is 20 cm. What could its area be?

Draw 4 different rectangles with a 20 unit perimeter and write in the area for each inside the shape





Challenge


I'm NEVER wrong, and I say the perimeter of a shape will always be greater than the area.
Waaaaa...I don't believe you. But I know every shape with a perimeter of 10 units will have the same area.
Investigate their statements and see if you can figure out who, if anyone, is correct.
Prove it