

# MATHS

## Learning Theme Measures



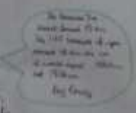
### Visual Fluency

3m =  $3 \times 1000$  = 3000m, 2.7km =  $27 \times 100$  = 2700m, 2.327kg =  $2327$ , 283+8g =  $2838$   
 37cm = 37m, 523km = 5234km, 302mm = 3.02m, 3282g = 3228kg  
 Circle the odd one out: 3450m, 345m, 345m, 0.345km, 4202kg, 4220g, 4202g

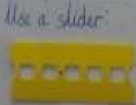
### Problem Solving

### Measuring

Joe measures the length of a school play area. He measures the length in metres. The length is 15.6m. Joe says that this measurement is the same as 1506cm. Is he right?



### Useful Resources



## Area of 2-D shapes

To calculate the area of a triangle

### Step 1

Check the triangle's dimensions.



### Step 2

Sketch a rectangle around the triangle, using the dimensions.



FACT! A triangle will always fit into a rectangle and take up 1/2 of its area

### Step 3

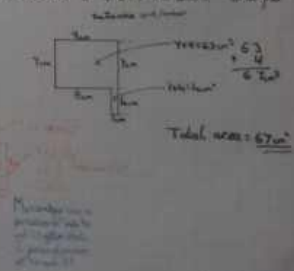
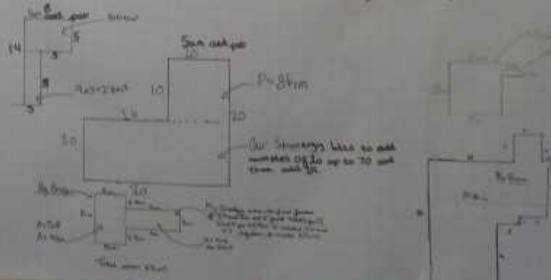
Calculate the area of the rectangle and half the amount.

$$16\text{cm} \times 12\text{cm} = 192\text{cm}^2$$

$$\text{Area of triangle} = 192 \div 2 = 96\text{cm}^2$$

## Area and perimeter challenge!

Can you draw a rectilinear shape that has a total area of 67cm<sup>2</sup>? How about a rectilinear shape with a perimeter of 84cm? What strategies did you use?



**Addition**  
 more + same  
 12 + 3 = 15

**Subtraction**  
 minus - same  
 15 - 3 = 12

**Multiplication**  
 times x same  
 3 x 5 = 15

**Division**  
 divide / same  
 15 / 3 = 5

is greater than >

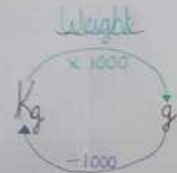
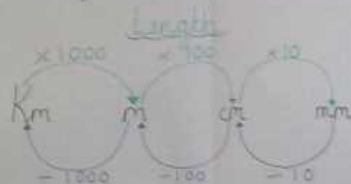
is less than <

is the same as =

4 9 16 25 2 3 5

# MATHS

## Learning Theme Measures



### Varied fluency

3m =  $\frac{3}{1000}$ km, 23m =  $\frac{23}{1000}$ km, 2.7km =  $\frac{2700}{1000}$ m, 2.327kg =  $\frac{2327}{1000}$ g, 28348g =  $\frac{28348}{1000}$ kg

37cm =  $\frac{37}{100}$ m, 523km =  $\frac{523000}{1000}$ m, 302km =  $\frac{302000}{1000}$ m, 3.02km =  $\frac{3020}{1000}$ m, 3282g =  $\frac{3282}{1000}$ kg, 3.228kg =  $\frac{3228}{1000}$ g

Circle the odd one out: 3450mm, 345m, 345m, 0.345km, 4.202kg, 4220g, 4.202g

### Problem Solving Reasoning



Joe measures the length of a school play area. He measures the length in metres. The length is 15.6m. Joe says that his measurement is the same as 1506cm. Is he right?

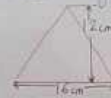
No because 15.6m is 1560cm. He 100 times as big as 1506cm. 1506cm is 15.06m.

Use a slider.

## Area of 2-D shapes

### To calculate the area of a triangle:

Step 1: Check the triangle's dimensions.



Step 2:

Sketch a rectangle around the triangle, using the dimensions.



FACT! A triangle will always fit into a rectangle and take up 1/2 of its area.

Step 3:

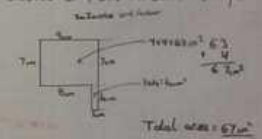
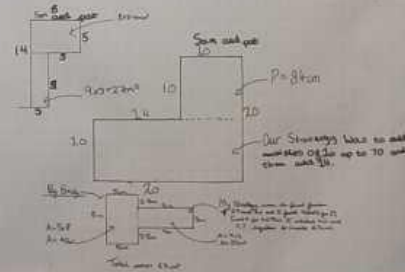
Calculate the area of the rectangle and half the amount.

$$16\text{cm} \times 12\text{cm} = 192\text{cm}^2$$

$$\text{Area of triangle} = 192 \div 2 = 96\text{cm}^2$$

### Area and perimeter challenge!

Can you draw a rectilinear shape that has a total area of 67cm<sup>2</sup>? How about a rectilinear shape with a perimeter of 84cm? What strategies did you use?



My strategy was to add up the sides to get the perimeter and then to find the area by adding up the areas of the rectangles.