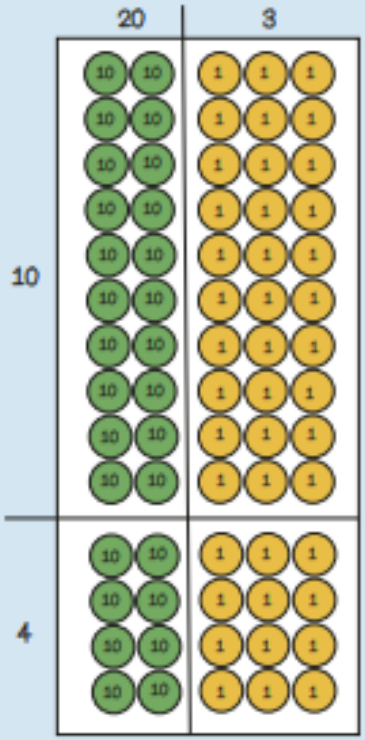
23 x 14



	20	3
10	200	30
4	80	12

```
  2 3
x 1 4
-----
  9 2
2 3 0
-----
3 2 2
```

When I multiply the multiplicand by the tens digit of the multiplier I put a zero in the ones column.

```
    6 2 3
  x   6 7
-----------
    4 3 6 1
3 7 3 8 0
-----------
4 1 7 4 1
```

In my head?
With jottings?
Formal written method?

426 x 50 = 426 x 100 ÷ 2
= 42600 ÷ 2
= 21300

30 x 99 = 30 x 100 – 30 x 1
= 3000 – 30
= 2970

0.4 x 7 = ?
If I know 4 x 7 = 28
then I also know that 0.4 x 7 = 2.8
because it is ten times smaller.

2.4 x 3 = ?
If I know 24 x 3 = 72
then I also know 2.4 x 3 = 7.2
because it is ten times smaller.

```
  2 4
x   3
-----
  7 2
```

9423 ÷ 3

```
  3141
3|9423
```

If I know...
then I also know...
because...

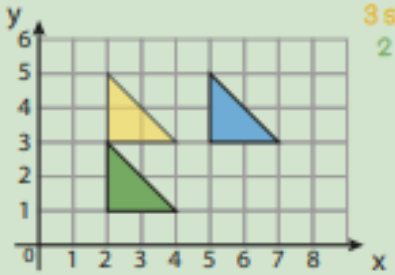
```
  0576r1
6|3437
```

1	6
2	12
4	24
5	30
8	48
10	60

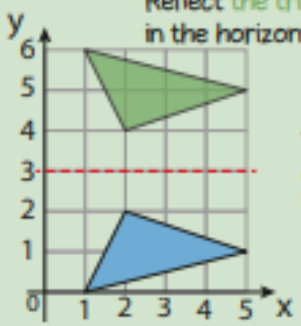
Year 5 Term 3

Congruent shapes are exactly the same shape and size.

Translate the triangle 3 squares left and 2 squares down.

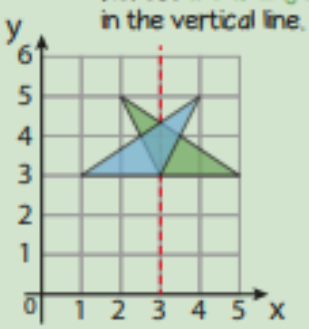


Reflect the triangle in the horizontal line.



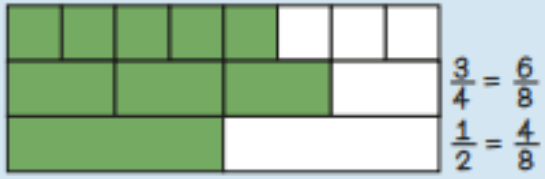
The image is the same distance from the mirror line as the object.

Reflect the triangle in the vertical line.



Year 5 Term 4

Use equivalence to compare $\frac{5}{8}$ $\frac{3}{4}$ $\frac{1}{2}$

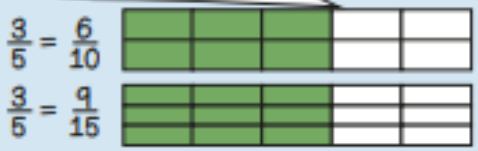


$\frac{3}{4} = \frac{6}{8}$

$\frac{1}{2} = \frac{4}{8}$

$\frac{1}{2} < \frac{3}{4} < \frac{5}{8}$

If there are 2 times as many equal parts, then there are 2 times as many shaded parts

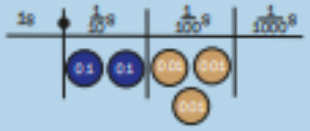


$\frac{3}{5} = \frac{6}{10}$

$\frac{3}{5} = \frac{9}{15}$

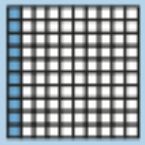
Decimals as fractions

$0.3 = \frac{3}{10}$



$0.23 = \frac{23}{100}$

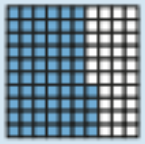
$0.241 = \frac{241}{1000}$



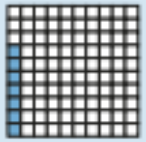
$\frac{10}{100} = \frac{1}{10}$

denominator
numerator
equivalence
thousandths
percentage

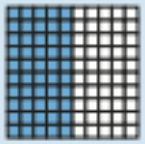
Percentage, decimal, fraction equivalence



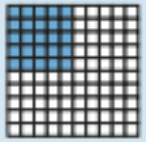
$\frac{64}{100} = 0.64 = 64\%$



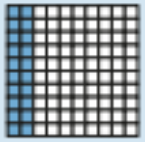
$\frac{7}{100} = 0.07 = 7\%$



$\frac{1}{2} = \frac{50}{100} = 0.5 = 50\%$



$\frac{1}{4} = \frac{25}{100} = 0.25 = 25\%$



$\frac{1}{5} = \frac{20}{100} = 0.2 = 20\%$

If I know $\frac{1}{5} = 20\%$ then I also know... because...

M	HTh	TTh	Th	100s	10s	1s	$\frac{1}{10}$	$\frac{1}{100}$	$\frac{1}{1000}$
					1	3	6		
				1	3	6			
		1	3	6	0	0			
					1	3	6		
					0	1	3	6	

Ten times greater

Ten times smaller

Converting units by multiplying and dividing by 10, 100 and 1000

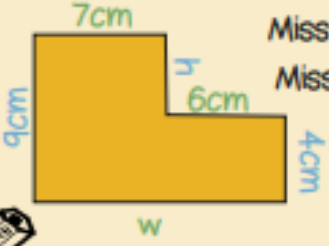
13.6 x 10
move digits 1 place left

13.6 x 1000
move digits 3 places left

13.6 ÷ 10
move digits 1 place right

13.6 ÷ 100
move digits 2 places right

imperial
metric
convert
perimeter
rectilinear

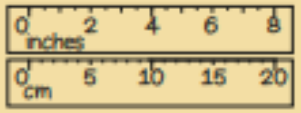


Missing width = w = 7 + 6 = 13cm

Missing height = h = 9 − 4 = 5cm

Perimeter
= 9 + 7 + h + 6 + 4 + w
= 44cm

2.5cm = approximately 1 inch



1kg = approximately 2 pounds

1 litre = approximately 2 pints

1m = 100 cm
13.6 x 100 = 1360
so 13.6m = 1360cm

1cm = 10 mm
13.6 x 10 = 136
so 13.6cm = 136mm

1km = 1000 m
13.6 x 1000 = 13600
so 13.6km = 13,600m

1l = 1000 ml
13600 ÷ 1000 = 13.6
so 13,600ml = 13.6litres

1kg = 1000 g
1360 ÷ 1000 = 1.36
so 1360g = 1.36kg

When converting from a larger unit to a smaller unit, multiply because there will be more of them.