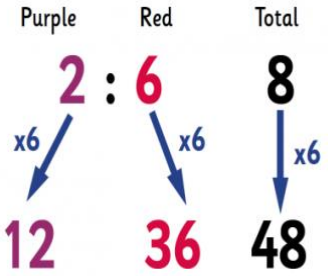
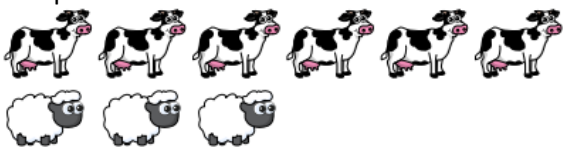
Monday 20.04.20
Understanding ratio recap
A ratio compares values, telling us how much of one thing there is compared to another thing.
For example:

There are 48 children in a playground. The ratio of boys to girls is 2:6. How many boys are there in the playground?



Monday 20.04.20
Q1
Complete the sentence



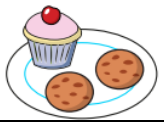
For every 3 sheep there are 6 cows.

For every 2 cows there is 1 sheep.

Q2
Eva is baking cakes and cookies.
For every 1 cake, she will bake 2 cookies.

If Eva bakes 3 cakes, how many cookies will she bake? 6

If Eva bakes 10 cookies, how many cakes will she bake? 5



Monday 20.4.20
Q3
A 50cm piece of string is divided up into two pieces using a ratio of 4:6, how long is each piece? **20:30**

Q4
A road is 15km long. The council chose to paint the fences along it green and blue in a ratio of 2:3 – how many km of fence are painted in each colour? **6:9**

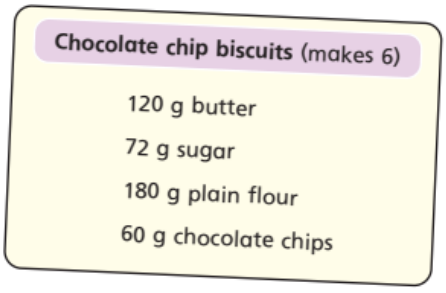
Monday 20.4.20
Q5
Can you use ratio to sort out these pots of money so that they can be shared out between people:

ratio 2:3 £75 **£26:£39**
ratio 5:1 £60 **£50:£10**
ratio 3:2 £55 **£33:£22**
ratio 1:4 £100 **£20:£80**
ratio 1:2 £90 **£30:£60**

Tuesday 21.4.20
Understanding Scale factors (Proportion)
Two quantities are in direct proportion when they increase or decrease in the same ratio (using multiplication and division facts). For example, you could increase something by doubling it (x2), or decrease it by halving (÷2).
Q1
Whitney buys 6 cans of lemonade for £3

How much do 12 cans cost?
£6
How much do 3 cans cost?
£1.50
How much do 15 cans cost?
£7.50

Tuesday 21.4.20



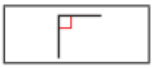
Amir is making biscuits. He has this list of ingredients to make 6 biscuits.

Q2 ingredient amount ÷ 2
How much of each ingredient does Amir need to make 3 biscuits? **Butter 60g, sugar 36g, plain flour 90g, chocolate chips 30g**

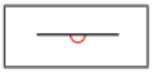
Tuesday 21.4.20
Q3 ingredient amount ÷ 3 =
How much of each ingredient does Amir need to make 2 biscuits? **Butter 40g, sugar 24g, plain flour 60g, chocolate chips 20g**

Tuesday 21.4.20
Q4 ingredients for 2 biscuits x 5
How much of each ingredient does Amir need to make 10 biscuits? **Butter 200g, sugar 120g, plain flour 300g, chocolate chips 100g**

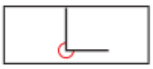
Wednesday 22.4.20
Angle facts
A quarter turn is 90◦



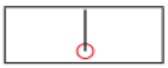
A half turn is 180◦ (a straight line)



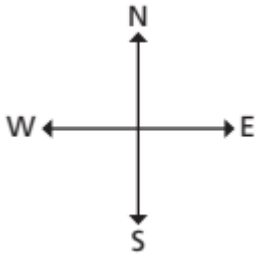
A three quarter turn is 270◦



A full turn is 360◦



Here is a compass



Wednesday 22.4.20
Using the compass, answering the following questions :
Q1 If you are facing North and you take a half turn, what direction are you now facing? **S**

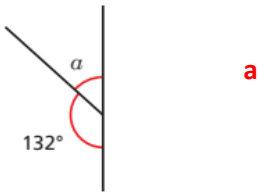
Q2 If you are facing east and you turn 180◦, what direction are you now facing? **W**

Q3 If you are facing west and you take a quarter turn clockwise, what direction are you now facing? **N**

Q4 If you are facing west and you turn 90◦ anticlockwise, what direction are you now facing? **S**

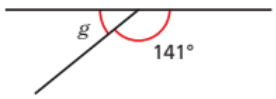
Wednesday 22.4.20
Angles along a straight line add up to 180◦.

Missing Angles
Using this fact, can you calculate the missing angles?



a= 48°

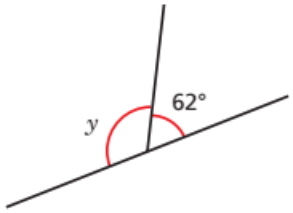
$a =$ ☐



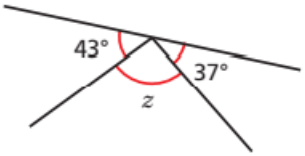
***g*= 39°**

$g =$ ☐

Wednesday 22.4.20



$y =$ ☐



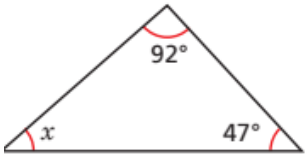
$z =$ ☐

y= 118°

Z= 100°

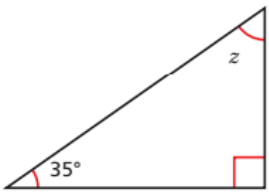
Thursday 23.4.20
Angles in a triangle
All the angles in a triangle add up to 180◦.
Using this fact, can you calculate the missing angles? **X= 41°**

Q1

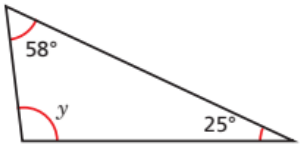


Thursday 23.4.20

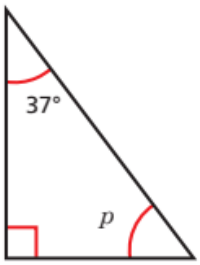
Q2 z= 55°



Q3 y= 97°



Thursday 23.4.20
Q4 Disagree because 180° - 37° - 90° = P therefore P = 53°



P = 143◦ because angles in a triangle add up to 180◦ and 180 – 37 = 143.
Do you agree?

Explain your answer.

Thursday 23.4.20
Can you name all the different types of triangles and explain their properties?

Equilateral triangle – all three sides and angles (60◦) are equal.
Scalene – no equal sides or angles.
Isosceles – two equal side and two equal angles.
Right angle – has one 90° angle.
Acute – has three angles less than 90°
Obtuse – has one angle more than 90°.

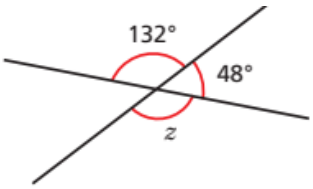
Friday 23.4.20
Opposite angles
When two lines cross, they create opposite angles.

Using this fact, can you calculate the missing angles? Give reasons for your answer.

Q1
***y* = 29 °because vertically opposite angles are equal.**

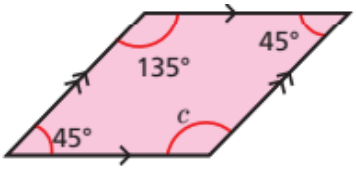
Friday 23.4.20

Q2
***z* = 132 °because vertically opposite angles are equal.**



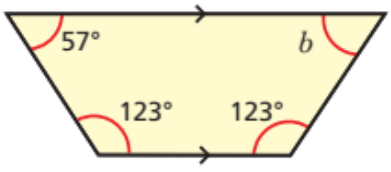
Friday 23.4.20
Angles in a quadrilateral
All the angles in a quadrilateral add up to 360◦.
Using this fact, can you calculate the unknown angles?

Q1

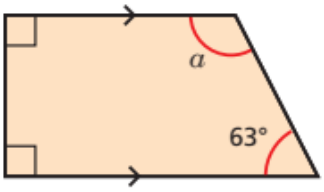


c = 135°

Friday 23.4.20
Q2



Q3



b = 57°
a = 117°