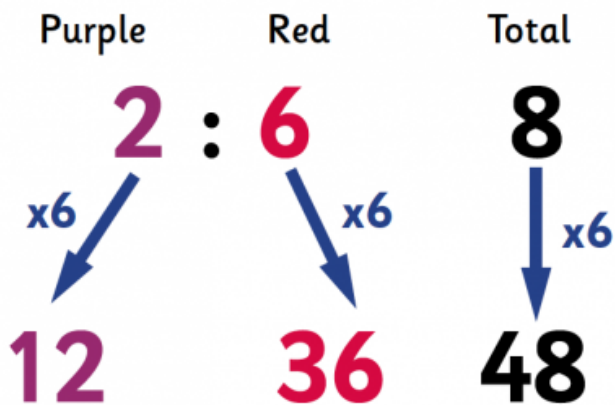


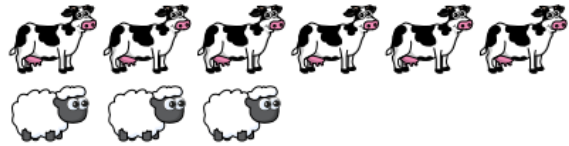
Monday 20.04.20

**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?



Q1. Complete the sentence



For every 3 sheep there are ..... cows.  
For every 2 cows there is ..... sheep.

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

- (a) If Eva bakes 3 cakes, how many cookies will she bake?
- (b) If Eva bakes 10 cookies, how many cakes will there be?



Q3. A 50cm piece of string is divided up into two pieces using a ratio of 4:6. How long is each piece?

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?

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
- ratio 5:1 £60
- ratio 3:2 £55
- ratio 1:4 £100
- ratio 1:2 £90

Tuesday 21.04.20

**Understanding Scale Factors:** Proportion

Two quantities are in direct proportion when they increase or decrease in the same ratio (using multiplication and division facts).  
E.g. you could increase something by doubling it ( $\times 2$ ), or decrease it by halving ( $\div 2$ ).

Q1. Whitney buys 6 cans of lemonade for £3



How much do 12 cans cost?  
How much do 3 cans cost?  
How much do 15 cans cost?

Q3. How much of each ingredient does Amir need to make 2 biscuits?

**Chocolate chip biscuits (makes 6)**

- 120 g butter
- 72 g sugar
- 180 g plain flour
- 60 g chocolate chips

Q2. Amir is making biscuits. He has this list of ingredients to make 6 biscuits.

How much of each ingredient does Amir need to make 3 biscuits?

Q4. How much of each ingredient does Amir need to make 10 biscuits?

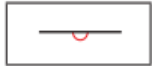
Wednesday 22.04.20

**Angle Facts:**

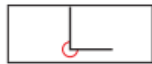
A quarter turn is  $90^\circ$



A half turn is  $180^\circ$   
(a straight line)



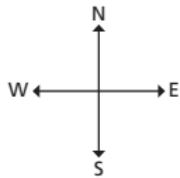
A three-quarter turn is  $270^\circ$



A full turn is  $360^\circ$



Here is a compass:



Using the compass, answer the questions:

Q1. If you are facing North and you take a half turn, what direction are you now facing?

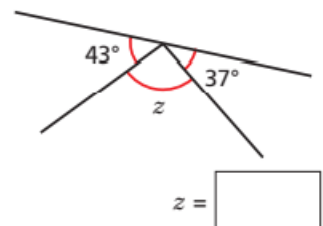
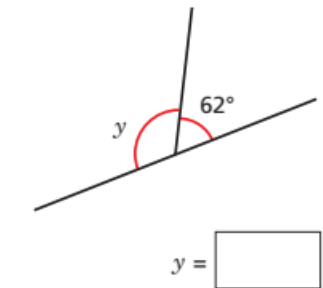
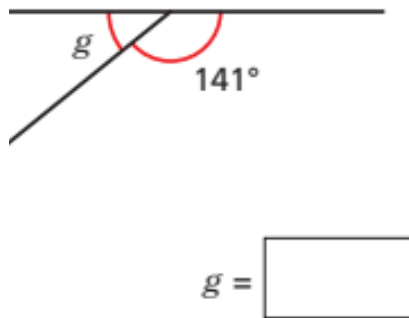
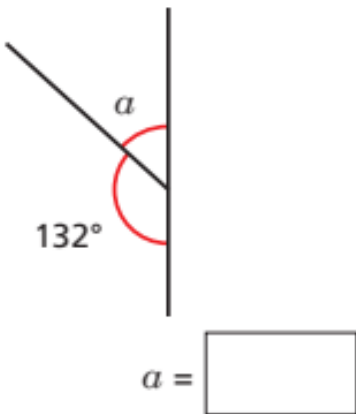
Q2. If you are facing east and you turn  $180^\circ$ , what direction are you now facing?

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

Q4. If you are facing west and you turn  $90^\circ$  anticlockwise, what direction are you now facing?

Missing Angles: Angles along a straight line add up to  $180^\circ$ .

Q5. Using this fact, can you calculate the missing angles?

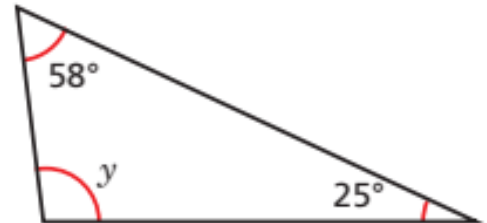
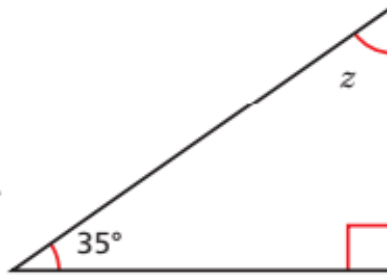
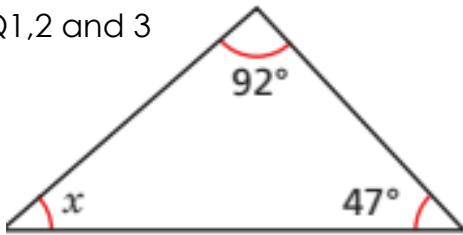


Thursday 23.04.20

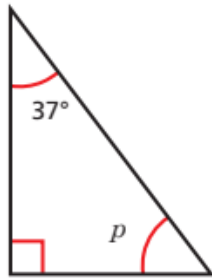
### Angles in a Triangle

All the angles in a triangle add up to  $180^\circ$ .  
Using this fact, can you calculate the missing angles?

Q1,2 and 3



Q4.  $P = 143^\circ$   
because angles in a triangle add up to  $180^\circ$  and  $180 - 37 = 143$ . Do you agree? Explain your answer.



Q5. Can you name all the different types of triangles and explain their properties?

*Equilateral triangle = All three angles are the same ( $60^\circ$ )*

Friday 24.04.20

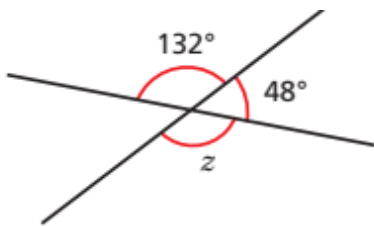
### Opposite Angles

When two lines cross, they create opposite angles.

Q1. Using this fact, can you calculate the missing angles? Give reasons for your answer.



$y = \dots\dots\dots$  because...

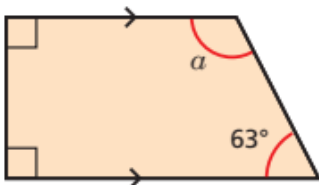


$z = \dots\dots\dots$  because...

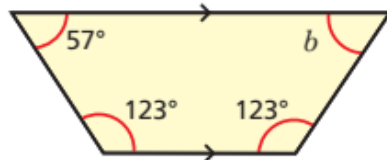
### Angles in a Quadrilateral

All the angles in a quadrilateral add up to  $360^\circ$ .

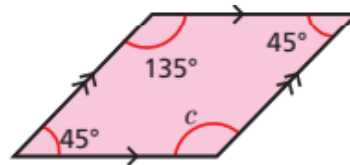
Using this fact, can you calculate the unknown angles?



$a = \dots\dots\dots$



$b = \dots\dots\dots$



$c = \dots\dots\dots$