

1*. The chocolate made to produce an Easter egg contains 35% fat. My egg weighs 250g so if I eat the whole egg will I



go over my recommended daily allowance of 80g fat?

2. Sarah eats twice as many Easter eggs as Dennis who eats one less than his brother Dan. Dan eats x Easter eggs.

Express the amount Sarah eats as an algebraic expression.

3*. Crème eggs are available with different special offers. Which offer below shows the best value for money? **You must show your working.**



A single crème egg costs 59p

A pack of 3 costs £1.29

A pack of 12 costs £4.89

4. Michelle arranges 6 Easter eggs (see below). Draw one possible plan view of these eggs.



5.

$$\begin{array}{ccccccc} \text{Creme egg} & + & \text{Malteser} & + & \text{Malteser} & = & \text{£2.09} \\ \text{Creme egg} & + & \text{Creme egg} & - & \text{Malteser} & = & \text{£0.43} \end{array}$$

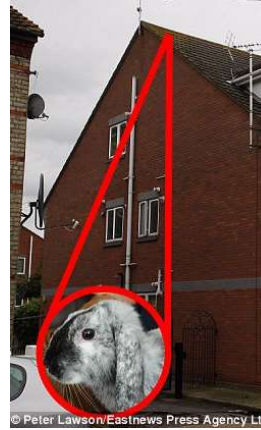
Calculate the cost of one Crème egg and one Malteser bunny. **You must show your working**

7. Below is the amount of Easter eggs eaten by members of staff in the Maths department Egg-a-thon.

11, 14, 15, 16, 19, 21, 24, 27, 30

Calculate the interquartile range
Draw a box plot of your results.

6. Barney the rabbit escaped his hutch and ended up trapped on the roof. The



ladder the firefighters used was 8.5 metres long when placed 2 metres from the wall. Calculate the height Barney reached on the roof.

8. This is the world's largest Easter egg weighing an



impressive 1950kg. The time taken (t) is inversely proportional to the number of workers (w). It took 26 workers 525 hours to make the egg. Set up an equation in terms of w and t.

Calculate how long it would take 100 workers to produce the same egg.

9*. The ingredients for Crème Egg brownies (makes 12):

185g unsalted butter
185g best dark chocolate
85g plain flour
40g cocoa powder
3 large eggs
275g golden caster sugar
6 Cadbury's Crème eggs cut in half

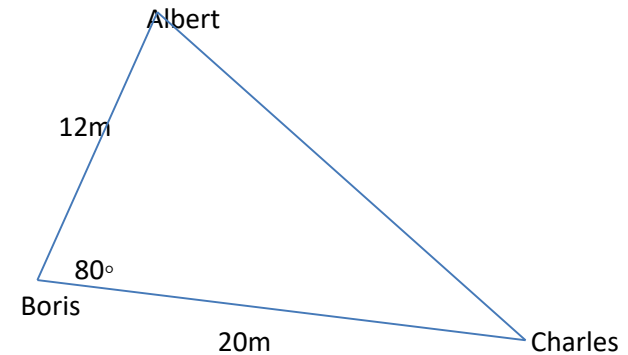


I want to make 30 brownies. I have 200g of flour, 120g of cocoa and plenty of the other ingredients. Do I have enough ingredients?

11. CHALLENGE:

There are 4 Malteser, 5 Rolo and 6 Mini Egg Easter eggs in my cupboard. What is the probability that I choose 3 Malteser eggs?

10.



3 lambs are in a field (Albert, Boris and Charles). Calculate the distance between Albert and Charles to **3 significant figures**.

12.

This Easter egg has a volume of 1500cm^3 . Calculate the radius of a sphere with the same volume. Give your answer to 3 significant figures.



13.



Albert the genius rabbit wants you to write the following recurring decimal as a fraction. He said it only

took him 1.2 seconds:

$0.4\dot{7}\dot{3}$

14. This U-shaped slide can be modelled by the quadratic $x^2 + 6x + 10$.



Write your answer in the form $(x + a) - b$. And hence find the minimum point of the slide.

15. A school has the following pupils in KS4:

Y9 – 400 pupils

Y10 – 455 pupils

Y11 – 445 pupils.



They want to calculate a stratified sample of 50 pupils to help choose a school pet.

16*. Blake the rabbit has a ramp with equation $2y + x = 7$.



His friend at the pet shop has a ramp with equation $y = 12 - 0.5x$.

Will the rabbits ever meet?