



Strengthening the  
Foundations Workbook

KS4 at Diss High School  
Maths Higher  
Summer 'catch up'

ANSWERS

Hello!

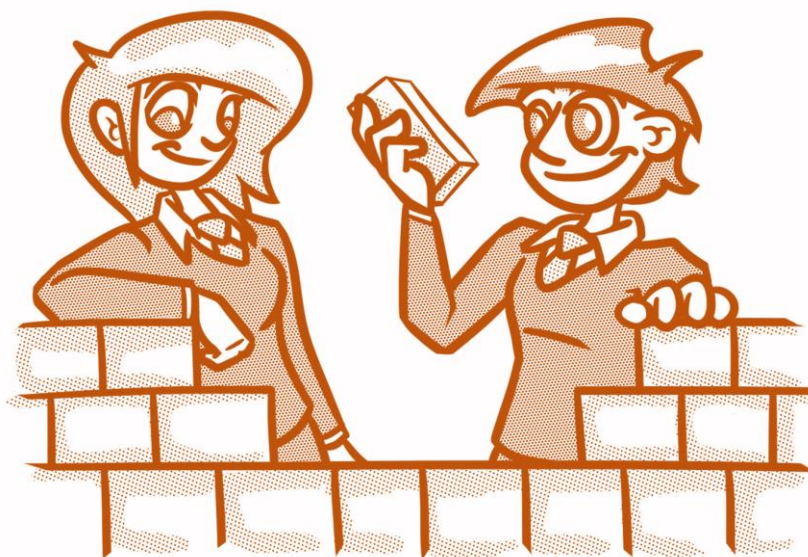
The answer for each question can be found in the appropriate bricks.

If the answer is too long for the brick then it will appear after the brick walls. There will be a letter or number in the brick to help you find the answer.

Where a brick has “**Individual response**”, it is because you have been asked to do something like “write a revision card” “design your own question with mark scheme”. Some things to consider when doing this:

- Have you included all the key information?
- Where can you find the key facts you need?
- Who is the question/ revision designed for?
- When writing a mark scheme have you considered **how** the marks are assigned?
- Are there different ways of answering the questions? Do you need to include multiple methods?
- How are you going to present your work?
- If you are designing a lesson what prior knowledge might the students need?
- Have you included examiner tips?

Good luck!



Individual response

Individual response

$$2x + 3 = 51$$

$x = 24, \text{Sue is 24}$

$$x = -1, y = 1$$

or

$$x = 2, y = 4$$

Individual response

$$x = -4, y = 5$$

$$x = 2 \text{ and } y = 4$$

or

$$x = -1 \text{ and } y = 1$$

6cm

$$x = \frac{-6y - 3}{(1 - y)}$$

$$x = 12, y = 9$$

Individual response

Individual response

$$x = \frac{7y + 4}{3}$$

$$-x^2 - x + 20$$

Use quadratic equation:

$$x = -11.385 \text{ or}$$

$$x = -0.615$$

If you left in exact form:

$$x = \frac{-14\sqrt{29}}{2}$$

Or

$$x = \frac{-10\sqrt{29}}{2}$$

$$x = 3, y = 4$$

Ratio men:women:children  
42:35:15

Fraction of men  $\frac{42}{92}$  which is  
less than  $\frac{1}{2}$

**A**

Individual response

Individual response

Individual response

Individual response

8 : 3 : 3

$$\frac{21}{80} = 26.25\%$$

1:10

Miles	Km
5	8
1	1.6
8	12.8

Uzma 12.8 km ran the  
furthest.

4 hours

$$\frac{74}{12} = 6\frac{1}{6}$$

calculate  $\frac{1}{6}$  of 12.

6ft 2 inches

$$2:5 = 1:2.5$$

$$\frac{2}{5}$$

Ella 12, Lucy 16, Daisy 36

£25, £50, £125

A

The ratio of cats to dogs in a kennel is 2:5. There are **24** more dogs than cats. Work out how many dogs there are.

Karen and Mary share £160. Mary receives **75%** of the money. How much did Karen receive?

A shade of green paint is to be made by mixing yellow, blue and white paint using the ratio 5:3:1. The paint uses **120**ml of blue. How much white is to be used?

A recipe for cakes needs sugar, flour and butter. The ratio of sugar to butter is 2:5. The recipe uses **6** times as much flour as sugar. A cake weighs 480 g. Calculate how much sugar is needed.

**The answer is 40**