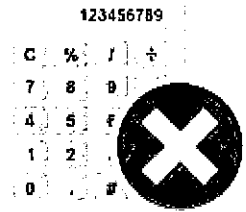


Year 11 – Set 4
Revision Homework
Easter Holidays

Name: _____
Teacher: _____

Instructions

- Answer **all** questions.
- Answer the questions in the spaces provided – *there may be more space than you need.*
- You must **show all your working.**
- Diagrams are **NOT** accurately drawn, unless otherwise indicated.
- **Calculators may not be used.**
- The marks for **each** question are shown in brackets – *use this as a guide as to how much time to spend on each question.*



Advice

- Read each question carefully before you start to answer it.
- Try to answer every question.
- Check your answers.

It is important that you put maximum effort into all homework tasks!

If you are having problems with any of the questions use the Corbett Maths website to support you. We have put the relevant clip number next to each question to help you.

The following sites may also be useful:

- PiXL Maths App
- MrBartonMaths – use the student section
- Mathsgenie
- MyMaths (croftonhs, pentagon)
- GCSE Bitesize

Your Class teacher will go through the questions in the first week after Easter.

Answer ALL questions.

Write your answers in the spaces provided.

You must write down all the stages in your working.

- 1 (a) Change 365 cm into metres.

Video number 349a

..... m
(1)

- (b) Change 2.7 kg into grams.

Video number 349b

..... g
(1)

(Total for Question 1 is 2 marks)

- 2 Work out $2 + 7 \times 10$

Video number 211

(Total for Question 2 is 1 mark)

- 3 Solve $\frac{y}{4} = 10.5$

Video number 110

y =

(Total for Question 3 is 1 mark)

- 4 Here are four numbers.

Video number 205

-9 -2 2 9

Write one of these numbers in each box to make a correct calculation.

$$\boxed{\quad} + \boxed{\quad} = -7$$

(Total for Question 4 is 1 mark)

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA



- 5 Here are the first four terms of a number sequence.

2 5 11 23

The rule to continue this sequence is

multiply the previous term by 2 and then add 1

Work out the 5th term of this sequence.

(Total for Question 5 is 1 mark)

- 6 Here are five straight rods.

Video number 16 .



All measurements are in centimetres.

The total length of the five rods is L cm.

Find a formula for L in terms of a .

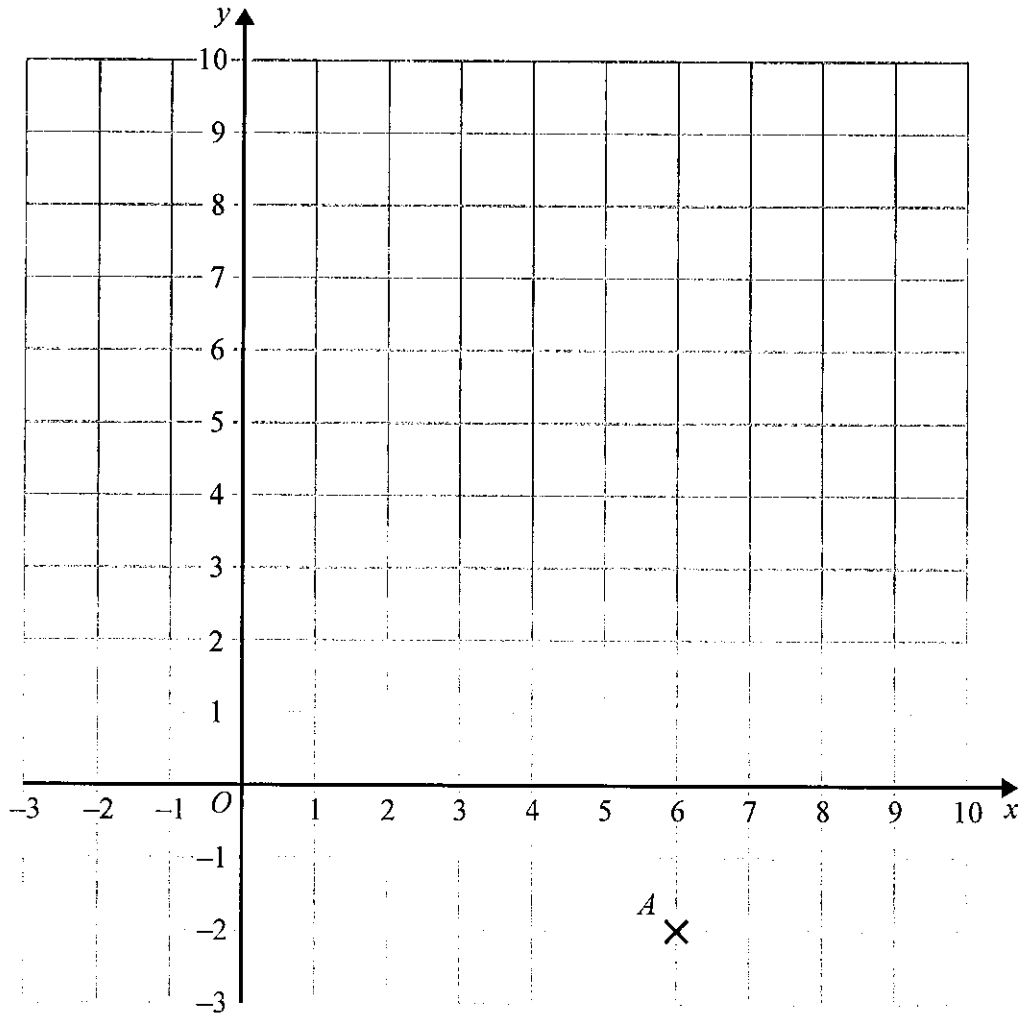
Write your formula as simply as possible.

(Total for Question 6 is 3 marks)



Video number 84

7



(a) Write down the coordinates of the point A .

(..... ,)



DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

(b) (i) Plot the point with coordinates (2, 9).
Label this point *B*.

(1)

(ii) Does point *B* lie on the straight line with equation $y = 4x + 1$?
You must show how you get your answer.

(c) On the grid, draw the line with equation $x = -2$

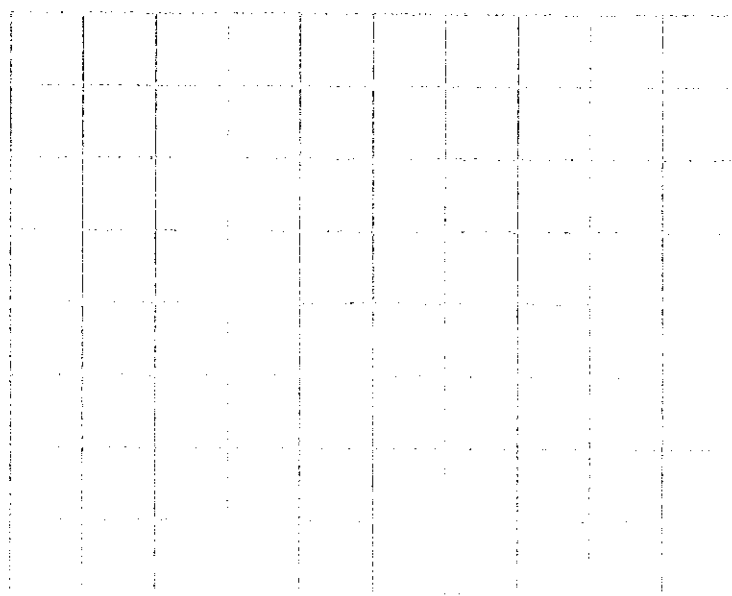
Video number 193
(1)

(Total for Question 7 is 4 marks)

8 The length of a rectangle is twice as long as the width of the rectangle.
The area of the rectangle is 32 cm^2 .

Draw the rectangle on the centimetre grid.

Video number
45



(Total for Question 8 is 2 marks)



P 4 9 3 4 7 A 0 5 2 4

9 Jacqui wants to work out $3480 \div 5$

She knows that $3480 \div 10 = 348$

Jacqui writes $3480 \div 5 = 174$

because $10 \div 5 = 2$

and $348 \div 2 = 174$

What mistake did Jacqui make in her method?

(Total for Question 9 is 1 mark)

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA



DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

Video number 57

10 Jake and Sarah each played a computer game six times.

Their scores for each game are shown below.

Jake	10	9	8	11	12	8
Sarah	2	10	7	14	4	10

(a) Who had the most consistent scores, Jake or Sarah?
You must give a reason for your answer.

(1)

Jake played a different game 20 times.

The stem and leaf diagram shows information about his scores.

Video number 170

0	9
1	2 3 3 4 5
2	5 6 6 6 6 7
3	1 3 4 6 8
4	0 2 9

Key 1 2 represents 12 points

Jake said his modal score was 6 points because 6 occurs most often in the diagram.

(b) Is Jake correct?
You must explain your answer.

(2)

(Total for Question 10 is 2 marks)



P 4 9 3 4 7 A 0 7 2 4

11 There are 30 children in a nursery school.
At least 1 adult is needed for every 8 children in the nursery.

(a) Work out the least number of adults needed in the nursery.

(2)

2 more children join the nursery.

(b) Does this mean that more adults are needed in the nursery?
You must give a reason for your answer.

(Total for Question 11 is 3 marks)

Video number 319

12 Emma has 45 rabbits.

- 30 of the rabbits are male.
- 8 of the female rabbits have short hair.
- 12 of the rabbits with long hair are male.

(a) Use the information to complete the two-way table.

	Male	Female	Total
Long hair			
Short hair			
Total			

One of Emma's rabbits is chosen at random.

(b) Write down the probability that this rabbit is a female with short hair.

(Total for Question 12 is 4 marks)



DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

13 The total surface area of a cube is 294 cm^2 .

Work out the volume of the cube.

Video numbers
310 and 355

..... cm^3

(Total for Question 13 is 4 marks)

14 Here are two fractions.

$$\frac{7}{5}$$

$$\frac{5}{7}$$

Video number
135

Work out which of the fractions is closer to 1
You must show all your working.

(Total for Question 14 is 3 marks)



Video number 269a

- 15 There are only red buttons, yellow buttons and orange buttons in a jar.
The number of red buttons, the number of yellow buttons and the number of orange buttons are in the ratio 7:4:9

Work out what percentage of the buttons in the jar are orange.

..... %

(Total for Question 15 is 2 marks)

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA



DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

16 Berenika wants to buy 35 T-shirts.

Each T-shirt costs £5.80

Berenika does the calculation $40 \times 6 = 240$ to estimate the cost of 35 T-shirts.

(a) Explain how Berenika's calculation shows the actual cost will be less than £240

.....
.....

There is a special offer.

<p>T-shirts £5.80 each.</p> <p>Buy 30 or more T-shirts.</p> <p>Get 10% off the total cost.</p>
--

(1)

Video numbers
204 and
234

(b) Work out the actual cost of buying 35 T-shirts using the special offer.

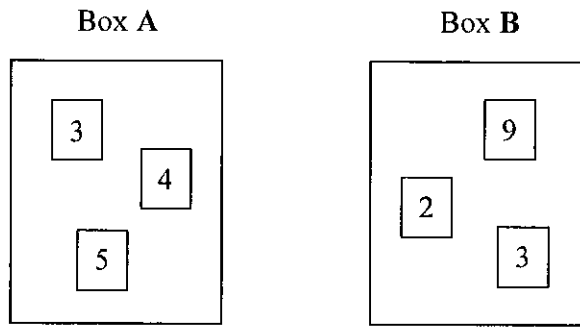
£

(2)

(Total for Question 16 is 5 marks)



17 There are 3 cards in Box A and 3 cards in Box B.
There is a number on each card.



Ryan takes at random a card from Box A and a card from Box B.
He adds together the numbers on the two cards to get a total score.

Work out the probability that the total score is an odd number.

(Total for Question 17 is 2 marks)

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA



DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

18 Harry, Regan and Kelan share £450 in the ratio 2 : 5 : 3

How much money does Kelan get?

Video number
270

£

(Total for Question 18 is 2 marks)

19 Here is a list of ingredients for making 16 flapjacks.

Video number
256

Ingredients for 16 flapjacks

- 120 g butter
- 140 g brown sugar
- 250 g oats
- 2 tablespoons syrup

Jenny wants to make 24 flapjacks.

Work out how much of each of the ingredients she needs.

butter g

brown sugar g

oats g

syrup tablespoons

(Total for Question 19 is 3 marks)



20 Ami and Josh use a calculator to work out $\frac{595}{4.08^2 + 5.3}$

Video number
215

Ami's answer is 27.1115
Josh's answer is 271.115

One of these answers is correct.

Use approximations to find out which answer is correct.

(Total for Question 20 is 3 marks)

21 Work out $\frac{0.06 \times 0.0003}{0.01}$

Video numbers
92, 94 and 300

Give your answer in standard form.

(Total for Question 21 is 3 marks)



DO NOT WRITE IN THIS AREA

Video number 21

22 (a) Work out $\frac{2}{5} + \frac{1}{4}$

DO NOT WRITE IN THIS AREA

(b) Write down the value of 2^{-3}

Video number 175

(2)

DO NOT WRITE IN THIS AREA

(Total for Question 22 is 3 marks)

23 Write 36 as a product of its prime factors.

Video number 223

(3)

DO NOT WRITE IN THIS AREA

(Total for Question 23 is 2 marks)



Video number 115

- 24 Kiaria is 7 years older than Jay.
Martha is twice as old as Kiaria.
The sum of their three ages is 77

Find the ratio of Jay's age to Kiaria's age to Martha's age.

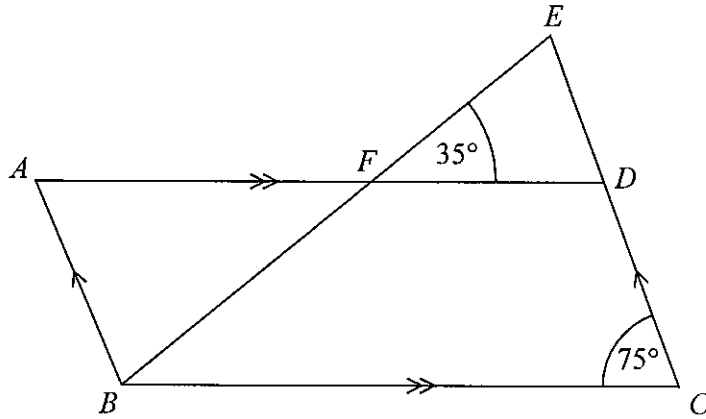
(Total for Question 24 is 4 marks)

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA





$ABCD$ is a parallelogram.

EDC is a straight line.

F is the point on AD so that BFE is a straight line.

Angle $EFD = 35^\circ$

Angle $DCB = 75^\circ$

Show that angle $ABF = 70^\circ$

Give a reason for each stage of your working.

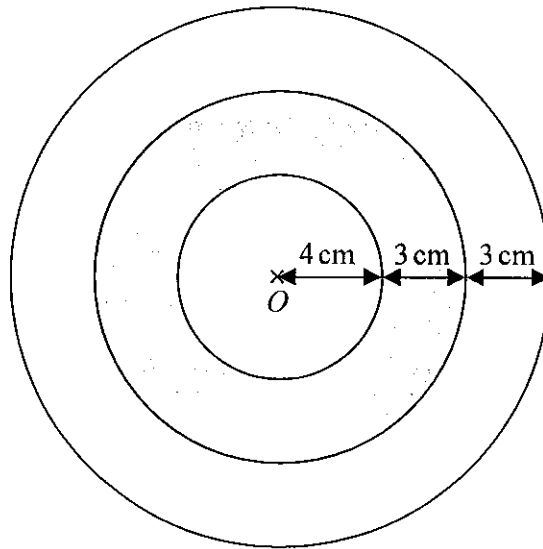
Video numbers
25, 39, 35
and 33

(Total for Question 25 is 4 marks)



26 The diagram shows a logo made from three circles.

Video number
59.



Each circle has centre O .

Daisy says that exactly $\frac{1}{3}$ of the logo is shaded.

Is Daisy correct?

You must show all your working.

(Total for Question 26 is 4 marks)



DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

27 The table shows information about the weekly earnings of 20 people who work in a shop.

Weekly earnings (£ x)	Frequency
$150 < x \leq 250$	1
$250 < x \leq 350$	11
$350 < x \leq 450$	5
$450 < x \leq 550$	0
$550 < x \leq 650$	3

(a) Work out an estimate for the mean of the weekly earnings.

Video number
55

£

Nadiya says,

“The mean may **not** be the best average to use to represent this information.”

(b) Do you agree with Nadiya?
You must justify your answer.

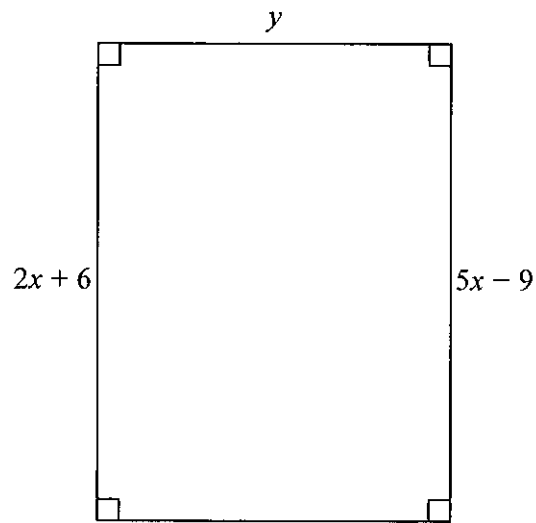
(Total for Question 27 is 4 marks)



P 4 9 3 4 7 A 0 1 9 2 4

28 Here is a rectangle.

Video number
115



All measurements are in centimetres.

The area of the rectangle is 48 cm^2 .

Show that $y = 3$

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

(Total for Question 28 is 4 marks)



DO NOT WRITE IN THIS AREA

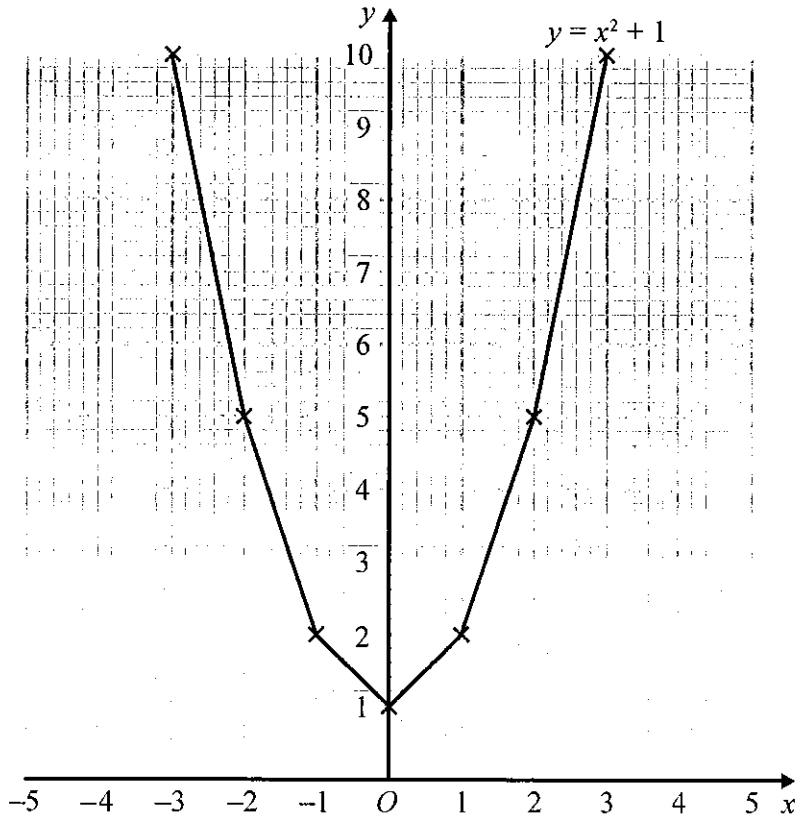
DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

29 Brogan needs to draw the graph of $y = x^2 + 1$

Video number 264

Here is her graph.



Write down one thing that is wrong with Brogan's graph.

(Total for Question 29 is 1 mark)



30 In a sale, the normal price of a book is reduced by 30%.
The sale price of the book is £2.80

Work out the normal price of the book.

Video number
240

£

(Total for Question 30 is 2 marks)

TOTAL FOR PAPER IS 80 MARKS

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA



DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

BLANK PAGE



P 4 9 3 4 7 A 0 2 3 2 4