

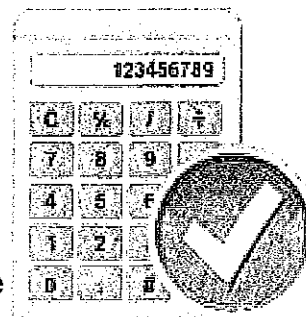
Year 11 – Set 3  
Revision Homework  
Easter Holidays

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 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 video number next to each question to help you.**

The following sites may also be useful:

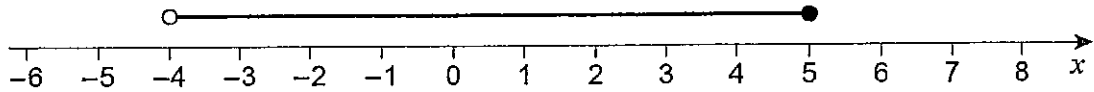
- PiXL Maths App
- MrBartonMaths – use the student section
- Mathsgenie
- MyMaths (croftonhs, pentagon)
- GCSE Bitesize

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

Answer **all** questions in the spaces provided

- 1 Circle the inequality shown by the diagram.

Video 177



[1 mark]

$-4 \leq x < 5$     
   $-4 \leq x \leq 5$     
   $-4 < x < 5$     
   $-4 < x \leq 5$

- 2  $y$  is 100% more than  $x$ .  
Circle the ratio  $x : y$

[1 mark]

$1 : 100$     
   $100 : 1$     
   $1 : 2$     
   $2 : 1$

- 3 The first four terms of a sequence are -10 -8 -6 -4

Video 288

Circle the expression for the  $n$ th term of the sequence.

[1 mark]

$-12 - 2n$     
   $-8 - 2n$     
   $n + 2$     
   $2n - 12$



- 4 Circle the equation of the line that is parallel to the  $x$ -axis.

Video 192/193

[1 mark]

$y = -5$

$x - y = 0$

$x = 3$

$x + y = 0$

- 5 Multiply out and simplify  $(x - 8)^2$

Video 194

[2 marks]

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Answer \_\_\_\_\_

Turn over for the next question



- 6 Show that 268 can be written as the sum of a power of 3 and a square number.

[2 marks]

Video 172

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Answer \_\_\_\_\_

- 7 Here is some information about the times taken by 40 people to fill in a form.

Video 51

Time, $t$ minutes	Number of people
$0 < t \leq 5$	3
$5 < t \leq 10$	9
$10 < t \leq 15$	11
$15 < t \leq 20$	17

In which class interval is the median?

Circle your answer.

[1 mark]

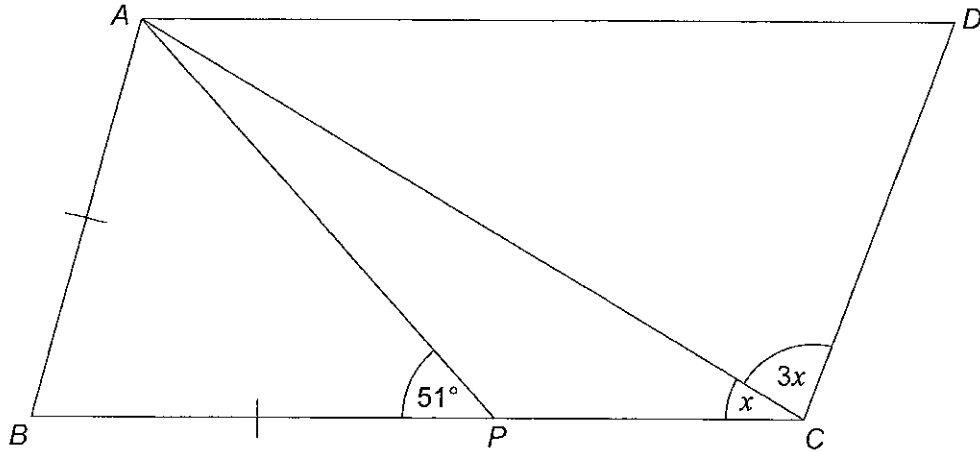
$0 < t \leq 5$        $5 < t \leq 10$        $10 < t \leq 15$        $15 < t \leq 20$



8

 $ABCD$  is a parallelogram. $AB = BP$ 

Video 33 / 37

Not drawn  
accuratelyWork out the size of angle  $x$ .**[4 marks]**


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Answer \_\_\_\_\_ degrees

Turn over for the next question

7
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Turn over ►



9 (a) Rearrange  $v = u + at$  to make  $t$  the subject of the formula.

Video 7

[2 marks]

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Answer \_\_\_\_\_

9 (b) Complete this table with consistent metric units.

Video 299

[2 marks]

Distance	Time	Speed	Acceleration
m	s		



10

Construct a locus of points that are the same distance from points *A* and *B*.

[2 marks]

Video 78

•  
*A*

•  
*B*

Turn over for the next question

6
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Turn over ►

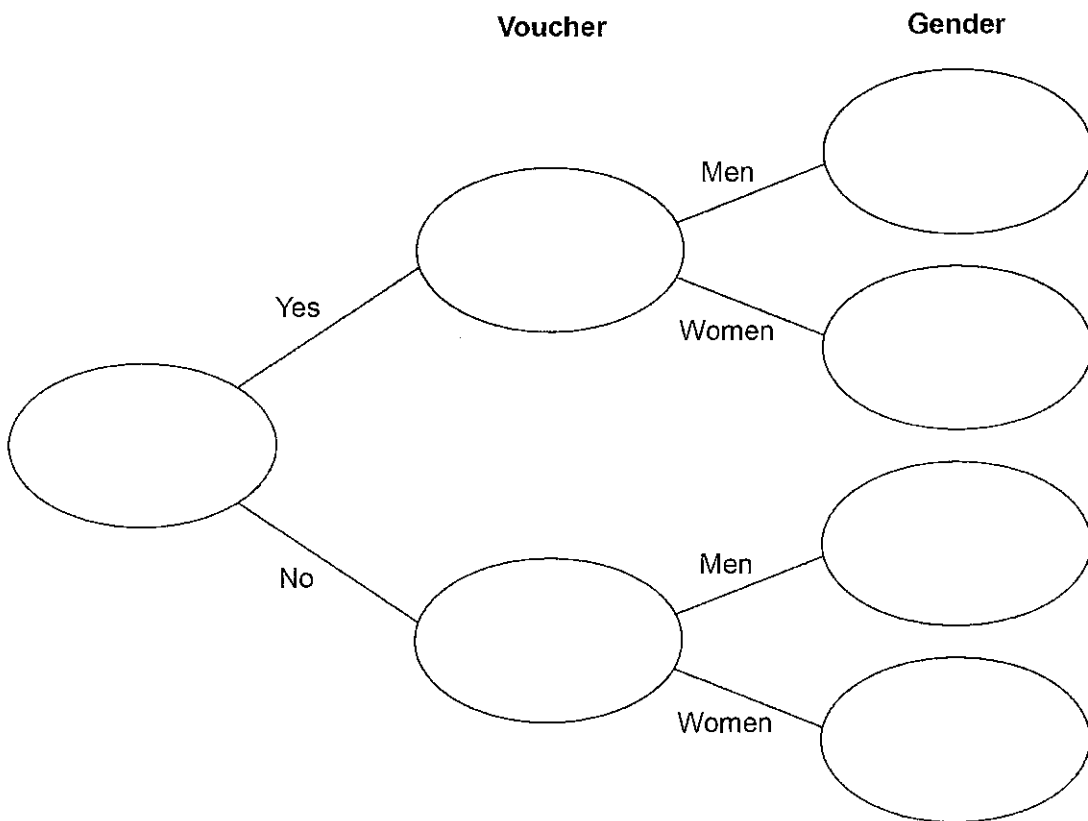


- 11 42 men and 38 women visit a restaurant.  
44 of these people have a voucher.  
Three times as many men as women do **not** have a voucher.

11 (a) Complete the frequency tree.

[4 marks]

Video 376





11 (b) A voucher takes 15% off the bill.  
After using the voucher, the bill for a meal is £27.20  
How much was the bill before using the voucher?

Video 240

[3 marks]

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Answer £ \_\_\_\_\_

Turn over for the next question

7

Turn over ►



**12** The distance by road from Newport to London is 140 miles.

Tom travels by coach from Newport to London.  
The coach leaves Newport at 1.30 pm

Video 299

**12 (a)** He assumes the coach will travel at an average speed of 50 mph

Use his assumption to work out the arrival time in London.

**[3 marks]**

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Answer .....

**12 (b)** In fact, the coach has a lower average speed.

How does this affect the arrival time?

**[1 mark]**

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13

Here is some information about the length of time cars stayed in a car park.

Video 149.

Shortest time 30 minutes

Lower quartile 2 hours

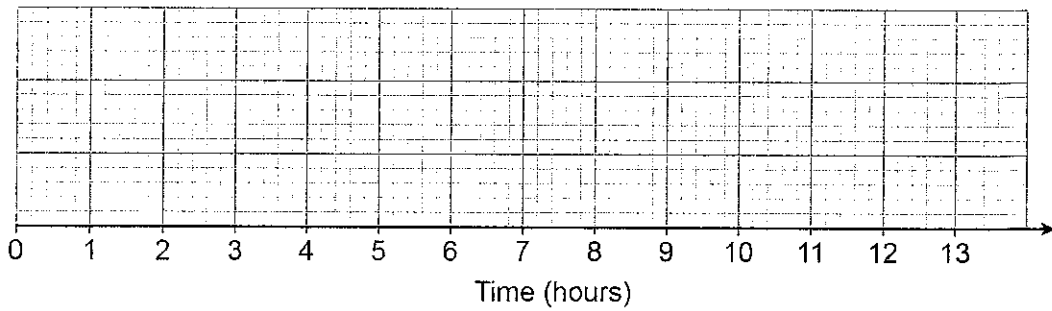
Longest time 12 hours

Interquartile range 3 hours

Median time 4 hours

Draw a box plot to show this information.

[3 marks]



Turn over for the next question

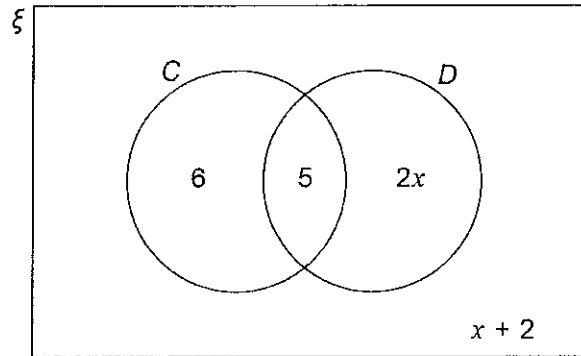
7

Turn over ►



14

In the Venn diagram

 $\xi$  represents 31 students in a class $C$  is students who have a cat $D$  is students who have a dog

14 (a) One student from the class is picked at random.

Video 115

Work out the probability that the student has a dog.

**[3 marks]**


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Answer \_\_\_\_\_

14 (b)

One of the students who has a cat is picked at random.

Video 245

Work out the probability that this student has a dog.

**[1 mark]**


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Answer \_\_\_\_\_



15

Circle the highest common factor (HCF) of  $6xy^2$  and  $4x^3y$ 

Video 219

[1 mark]

$2xy^2$

$2xy$

$12x^3y^2$

$24x^4y^3$

16

$f(x) = x^2 - x^3$

Circle the value of  $f(-3)$ 

Video 20/370

[1 mark]

18

-18

36

-36

Turn over for the next question

Turn over ►



17

At a football game

number of men : number of women : number of children = 13 : 5 : 7

There are 4152 **more** men than women.

Video 2716

Work out the number of children at the game.

**[3 marks]**


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Answer \_\_\_\_\_

18

Expand and simplify  $(3x^2 + 2)(2x + 5) - 6x(x^2 - 3)$ 

Video 13/14 / 0

**[4 marks]**


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Answer \_\_\_\_\_

