

GCSE Boot Camp

Foundation Maths Week 5 Workbook

Questions



GCSE Boot Camp

Topics

Hello! Welcome to week 5 of your 8 week GCSE Boot Camp.

Every week you'll get a practice workbook to work through a range of topics, taken from our GCSE Foundation Advanced course.

We've also included links to 2 of our expert tutorial videos on some of these exact questions. That way, if you get stuck, you can try watching one of our tutorial videos with our Maths expert Patricia.

For full access to all of the corresponding videos sign up for a SchoolOnline subscription from £8.99 a month.

In next week's email we'll send you the answers to this workbook to download *PLUS* a brand new workbook to practice.

Your week 5 workbook topics are:

- Probability and Statistics
- Shape and Area

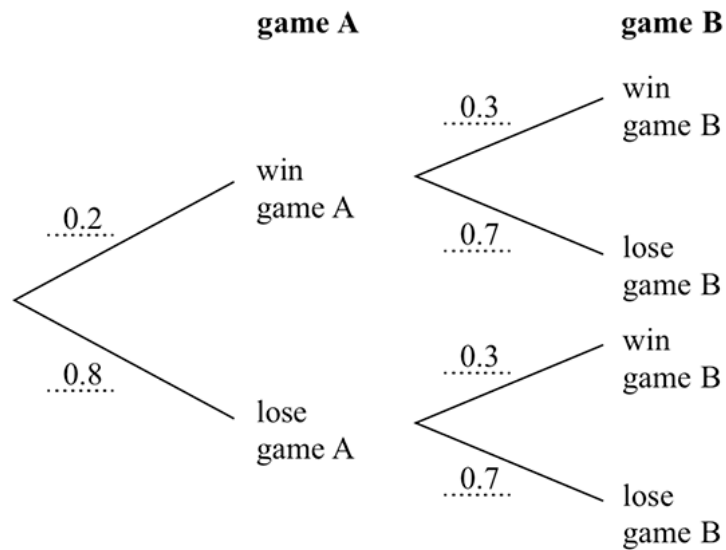


GCSE Foundation Maths - Probability and statistics

Probability Tree

Sample A Foundation Calc Paper 2

29 Here is a probability tree diagram.



Work out the probability of winning both games.

.....
(Total for Question 29 is 2 marks)

Frequency Tree

Sample A Foundation Non-Calc Paper 1

17 100 students had some homework.

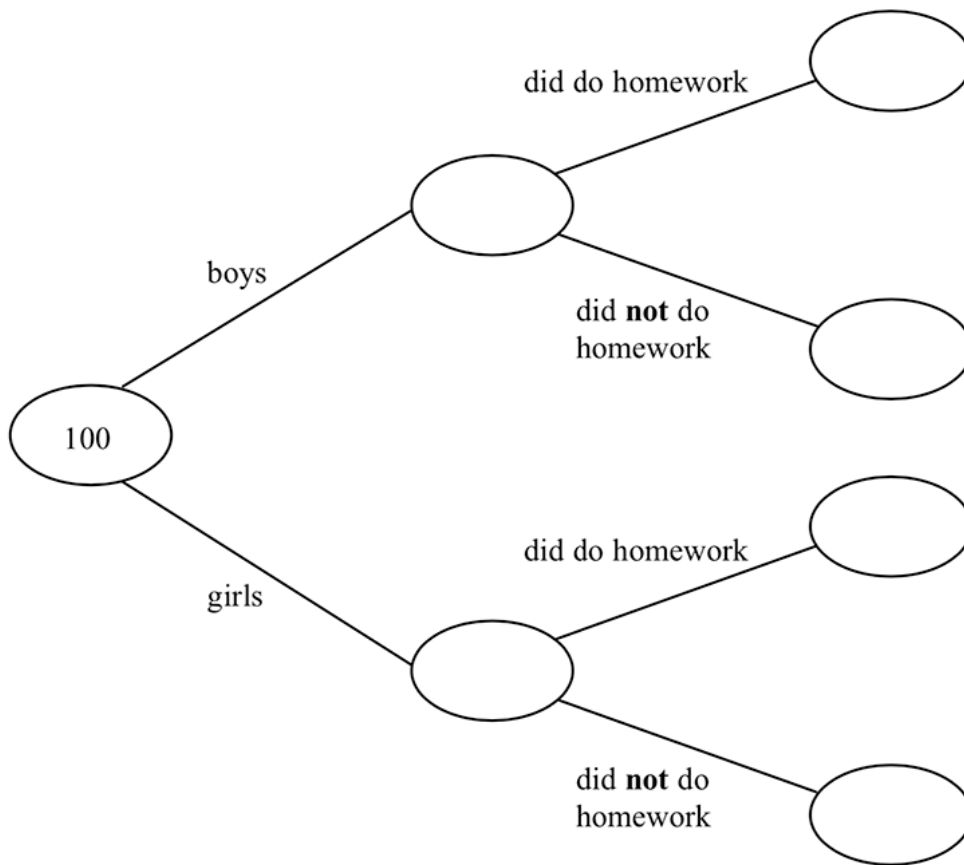
42 of these students are boys.

8 of the 100 students did **not** do their homework.

53 of the girls did do their homework.

(a) Use this information to complete the frequency tree.

(3)



One of the girls is chosen at random.

(b) Work out the probability that this girl did **not** do her homework.

(2)

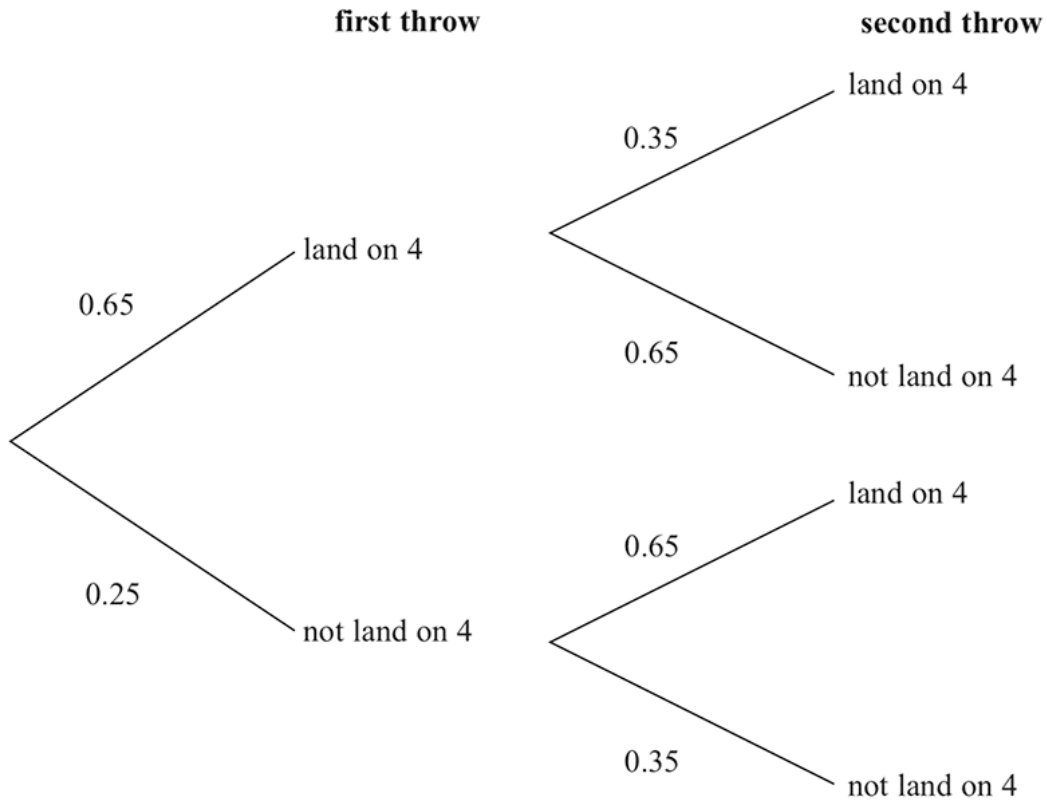
(Total for Question 17 is 5 marks)

Tree Diagrams

June 2018 Foundation Calc Paper 3

22 When a biased 6-sided dice is thrown once, the probability that it will land on 4 is 0.65
The biased dice is thrown twice.

Amir draws this probability tree diagram.
The diagram is **not** correct.



Write down **two** things that are wrong with the probability tree diagram.

1.....
.....
2.....
.....

(Total for Question 22 is 2 marks)

Mean and Mode

Sample A Foundation Calc Paper 2

27 The table shows some information about the foot lengths of 40 adults.

Foot length (f cm)	Number of adults
$16 \leq f < 18$	3
$18 \leq f < 20$	6
$20 \leq f < 22$	10
$22 \leq f < 24$	12
$24 \leq f < 26$	9

(a) Write down the modal class interval.

.....
(1)

(b) Calculate an estimate for the mean foot length.

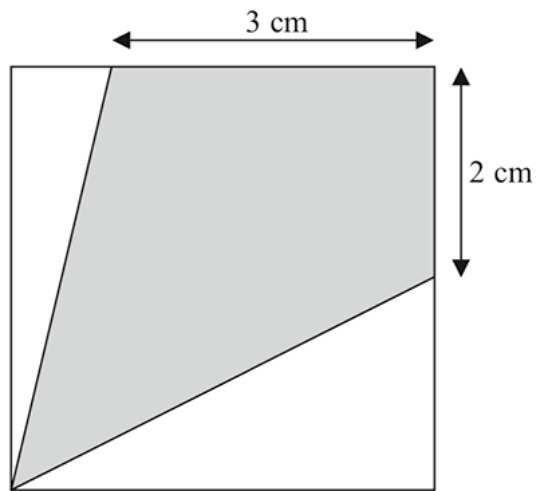
..... cm
(3)

(Total for Question 27 is 4 marks)

Proportion

Sample B Foundation Non-Calc Paper 1

20 The diagram shows a square with perimeter 16 cm.



Work out the proportion of the area inside the square that is shaded.

.....
(Total for Question 20 is 5 marks)

GCSE Boot Camp

Expert tutorial

The screenshot shows a video player interface. At the top left, it says 'GCSE MATHEMATICS PAPER 2 (Calculator)' and '29'. The main content area contains the text: 'Here is a probability tree diagram. Work out the probability of winning both games.' To the right is a probability tree diagram. It starts with 'game A' which branches into 'win game A' (probability 0.2) and 'lose game A' (probability 0.8). From 'win game A', it branches into 'win game B' (probability 0.3) and 'lose game B' (probability 0.7). From 'lose game A', it branches into 'win game B' (probability 0.3) and 'lose game B' (probability 0.7). A large purple banner with the text 'Click to play!' is overlaid on the bottom right of the video player, with a white arrow pointing to the play button area.

Need some extra help? That's what we're here for!

In this video Patricia will explain how to answer the first question on Probability and Statistics section of your workbook (Q29) which looks at a tree diagram.

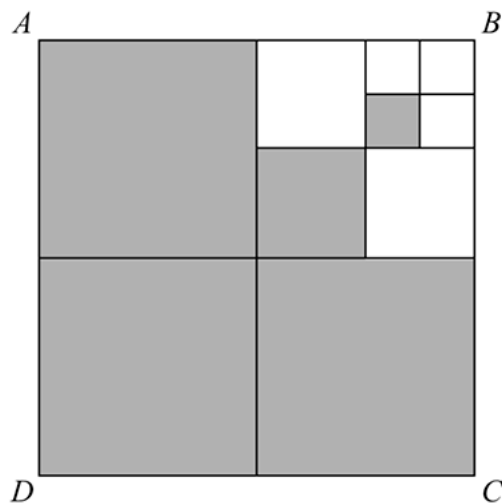
Grab your pen and paper and remember to take notes! If you want more access to awesome videos like this, [sign up for a full SchoolOnline subscription here.](#)

GCSE Foundation Maths - Shape and Area 2

Fractions

Sample A Foundation Calc Paper 2

- 7 $ABCD$ is a square.
This diagram is drawn accurately.



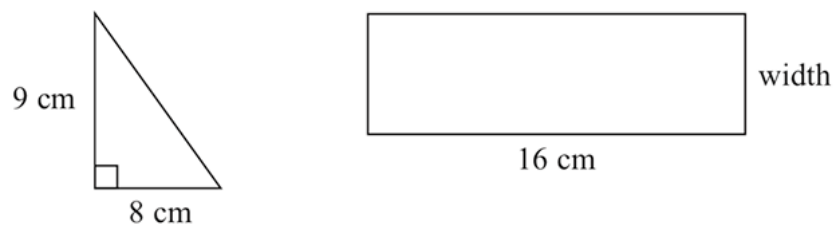
What fraction of the square $ABCD$ is shaded?

.....
(Total for Question 7 is 2 marks)

Area Of Shapes

June 2017 Foundation Non-Calc Paper 1

15 Here are a triangle and a rectangle.



The area of the rectangle is 6 times the area of the triangle.

Work out the width of the rectangle.

..... cm

(Total for Question 15 is 4 marks)

Percentages

Sample B Foundation Non-Calc Paper 1

22 Triangle ABC has perimeter 20 cm.

$$AB = 7 \text{ cm.}$$

$$BC = 4 \text{ cm.}$$

By calculation, deduce whether triangle ABC is a right-angled triangle.

(Total for Question 22 is 4 marks)

GCSE Boot Camp

Expert tutorial



Need some extra help? That's what we're here for!

In this video Patricia will explain how to answer the first question on the Shape and Area section of your workbook (Q7).

Grab your pen and paper and remember to take notes! If you want more access to awesome videos like this, [sign up for a full SchoolOnline subscription here.](#)

