PINPOINT REVISION PACKS

0_to_34_Percent_Pinpoint_AI_Pack

Time Allocation = 84mins , Max = 74 Marks

Calculated Grade Boundaries:

Grade	Marks
1-	74

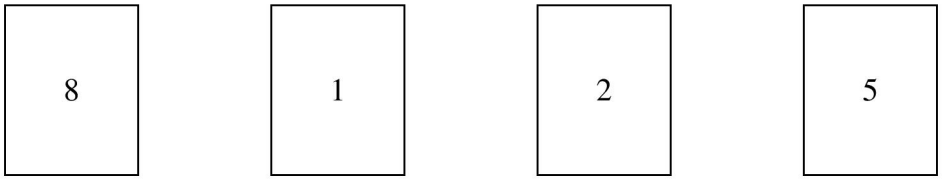
Question 1 (AO1): (No Calc) 96% of students got this right (1 marks)

1 (*a*) Write the following numbers in order of size.
Start with the smallest number.

-8 2 -12 5 10

Question 2 (AO1): (No Calc) 90% of students got this right (1 marks)

2 Here are four cards.
There is a number on each card.



(a) Write down the largest 4-digit number that can be made using each card only once.

.....

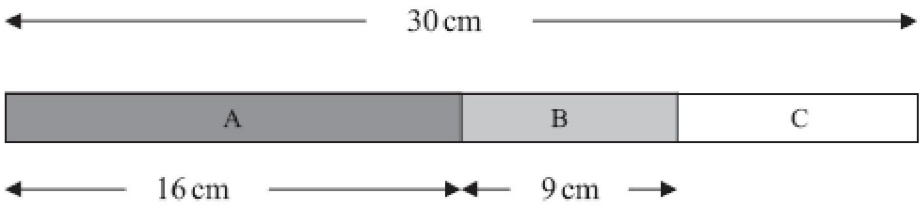
(1)

Question 3 (AO1): (No Calc) 88% of students got this right (1 marks)

11 (*a*) Write down the number of faces of a cube.

Question 4 (AO1): (No Calc) 85% of students got this right (2 marks)

5.



Here is a picture of a stick.
The stick is in three parts, A, B and C.

The total length of the stick is 30 cm.
The length of part A is 16 cm.
The length of part B is 9 cm.

Work out the length of part C.

Question 5 (AO1): (No Calc) 84% of students got this right (1 marks)

2. Write $\frac{7}{10}$ as a percentage.

..... %

(Total for Question 2 is 1 mark)

Question 6 (AO1): (No Calc) 83% of students got this right (1 marks)

4 Write 2549 correct to the nearest 10

Question 7 (AO1): (No Calc) 83% of students got this right (1 marks)

4. How many minutes are there in $3\frac{1}{2}$ hours?

..... minutes

(Total for Question 4 is 1 mark)

Question 8 (AO1): (No Calc) 82% of students got this right (3 marks)

9 Here are some prices in a cafe.

Prices	
Tea	£1.60
Coffee	£2.25
Milk	95p
Toast	£1.85
Bacon sandwich	£3.30
Egg sandwich	£2.95

Jack orders

2 teas
1 coffee
1 toast
1 bacon sandwich

Jack only has a £10 note.

Does he have enough money to pay the bill?
You must show how you get your answer.

Question 9 (AO1): (No Calc) 82% of students got this right (2 marks)

7a Here are the ages of 16 men.

40	28	40	37	35	34	29	40
34	33	30	28	32	29	27	27

(a) Complete the table to show this information.

Age	Tally	Frequency
27–29		
30–32		
33–35		
36–38		
39–41		

(2)

Question 10 (AO1): (No Calc) 82% of students got this right (1 marks)

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

2 5 11 23

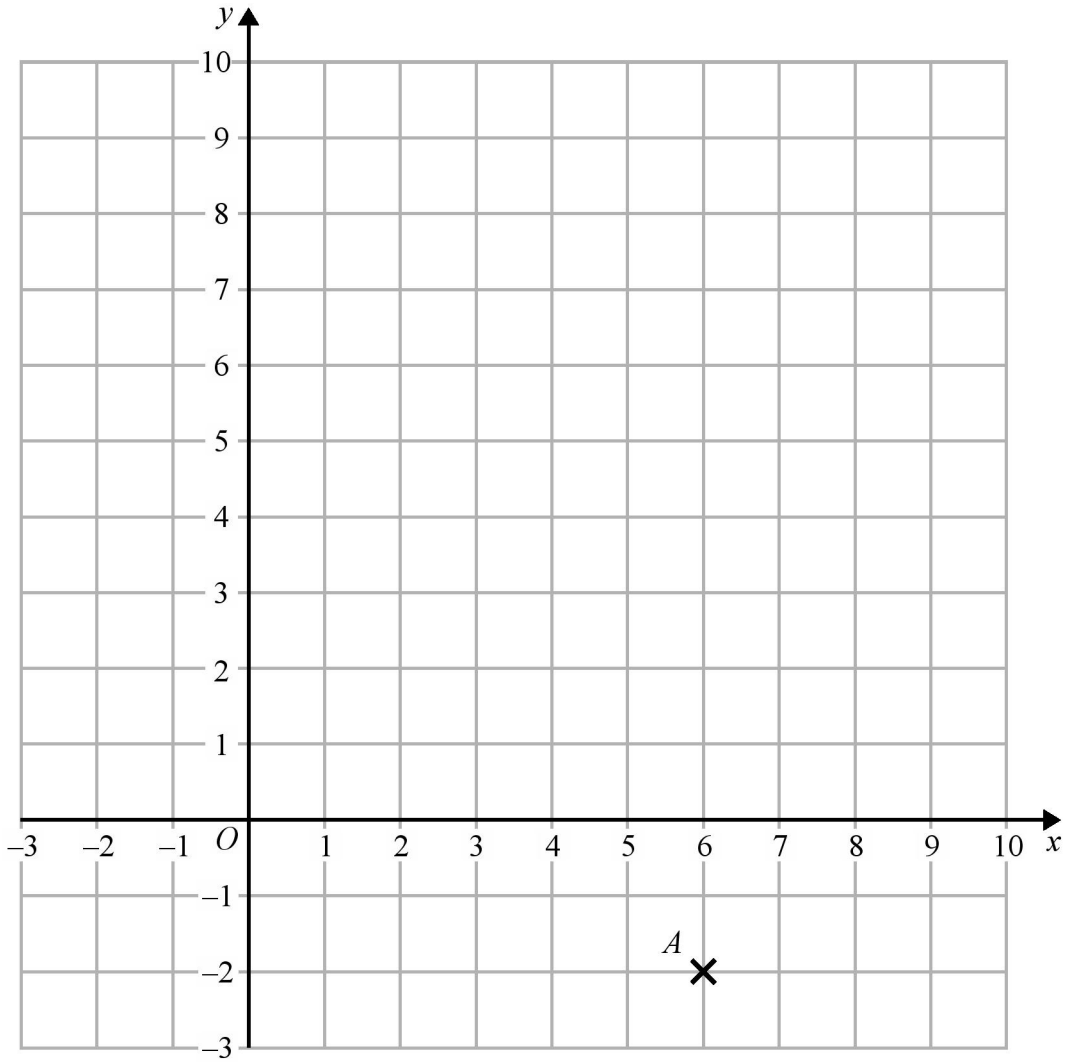
The rule to continue this sequence is

multiply the previous term by 2 and then add 1

Work out the 5th term of this sequence.

Question 11 (AO1): (No Calc) 80% of students got this right (1 marks)

7



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

Question 12 (AO1): (No Calc) 80% of students got this right (1 marks)

2 Which one of these numbers is a multiple of 12?

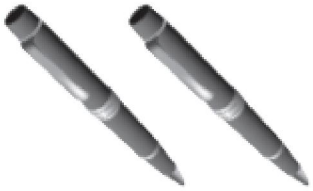
Circle your answer.

[1 mark]

50 56 48 46

Question 13 (AO1): (No Calc) 79% of students got this right (3 marks)

7. The total cost of these 2 pens is 60p.



Work out the total cost of 5 of these pens.

Give your answer in pounds.

Question 14 (AO1): 78% of students got this right (2 marks)

11. Here is part of a bus timetable from Harrow Lane to Cartbridge Street.

Harrow Lane to Cartbridge Street

Harrow Lane	08 02	09 04	10 12	11 02	12 04	12 12
Elm Drive	08 19	09 21	10 29	11 19	12 21	12 29
Hamden Road	08 32	09 34	10 42	11 32	12 34	12 42
Swipe Crescent	08 41	09 43	10 51	11 41	12 43	12 51
Cartbridge Street	08 50	09 52	11 01	11 50	12 52	13 01

A bus goes from Harrow Lane to Cartbridge Street.
The bus leaves Harrow Lane at 08 02

(*a*) At what time should the bus get to Cartbridge Street?

.....

(1)

Here is part of a bus timetable from Cartbridge Street to Harrow Lane.

Cartbridge Street to Harrow Lane

Cartbridge Street	13 11	14 14	15 07	16 11	17 14	18 07
Swipe Crescent	13 20	14 24	15 16	16 20	17 24	18 16
Hamden Road	13 29	14 33	15 25	16 29	17 33	18 25
Elm Drive	13 43	14 47	15 39	16 43	17 47	18 39
Harrow Lane	13 53	14 57	15 49	16 53	17 57	18 49

A bus goes from Cartbridge Street to Harrow Lane.
This bus leaves Hamden Road at 13 29

(*b*) Work out how many minutes this bus should take to go from Hamden Road to Elm Drive.

.....

(1)

Question 15 (AO1): 78% of students got this right (3 marks)

3. (*a*) Simplify $m + m + m + m$

.....

(1)

(*b*) Simplify $5a - 2a$

.....

(1)

(*c*) Simplify $x \times y \times 4$

.....

(1)

(Total 3 mark)

Question 16 (AO1): (No Calc) 78% of students got this right (1 marks)

11 How many degrees does the **hour** hand on a clock turn in 6 hours?

Circle your answer.

[1 mark]

270° 180° 540° 90°

Question 17 (AO1): (No Calc) 78% of students got this right (1 marks)

5 In the space below, draw a hexagon.

Question 18 (AO1): (No Calc) 77% of students got this right (2 marks)

6. Jessica thinks of a number.

She multiplies the number by 3.
She then subtracts 7.
Her answer is 5.

What number did Jessica think of?

Question 19 (AO1): (No Calc) 77% of students got this right (3 marks)

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			

Question 20 (AO1): (No Calc) 77% of students got this right (2 marks)

7. On Monday Alex earned £120
She worked for 8 hours.

(a) Work out Alex's hourly rate of pay.

£ .....

(2)

Question 21 (AO1): (No Calc) 76% of students got this right (2 marks)

6 Find the number that is exactly half way between –4 and 10

Question 22 (AO1): (No Calc) 76% of students got this right (2 marks)

7 Work out £3.89 × 5

Question 23 (AO1): (No Calc) 76% of students got this right (1 marks)

3 What name is given to the **most frequent** item in a list?

Circle your answer.

[1 mark]

mean median mode range

Question 24 (AO1): (No Calc) 75% of students got this right (2 marks)

9 (a) Solve $y + 25 = 31$ **[1 mark]**

$y =$ _____

9 (b) Solve $0.5y = 20$

[1 mark]

$y =$ _____

Question 25 (AO1): (No Calc) 75% of students got this right (1 marks)

13 A point lies on the graph with equation $y = x^2 + x - 1$

The x-coordinate of the point is -4

Circle the coordinates of the point.

[1 mark]

$(-4, -21)$ $(-4, -9)$ $(-4, 11)$ $(-4, 12)$

Question 26 (AO1): (No Calc) 74% of students got this right (1 marks)

5. Write down the 17th odd number.

.....

(Total for Question 5 is 1 mark)

Question 27 (AO1): (No Calc) 74% of students got this right (2 marks)

10 There are only 9 counters in a bag.

There are

2 red counters
3 green counters
4 blue counters

Lethna takes at random a counter from the bag.

(*a*) Write down the probability that she takes

(i) a blue counter,

(ii) a white counter.

Question 28 (AO1): (No Calc) 73% of students got this right (1 marks)

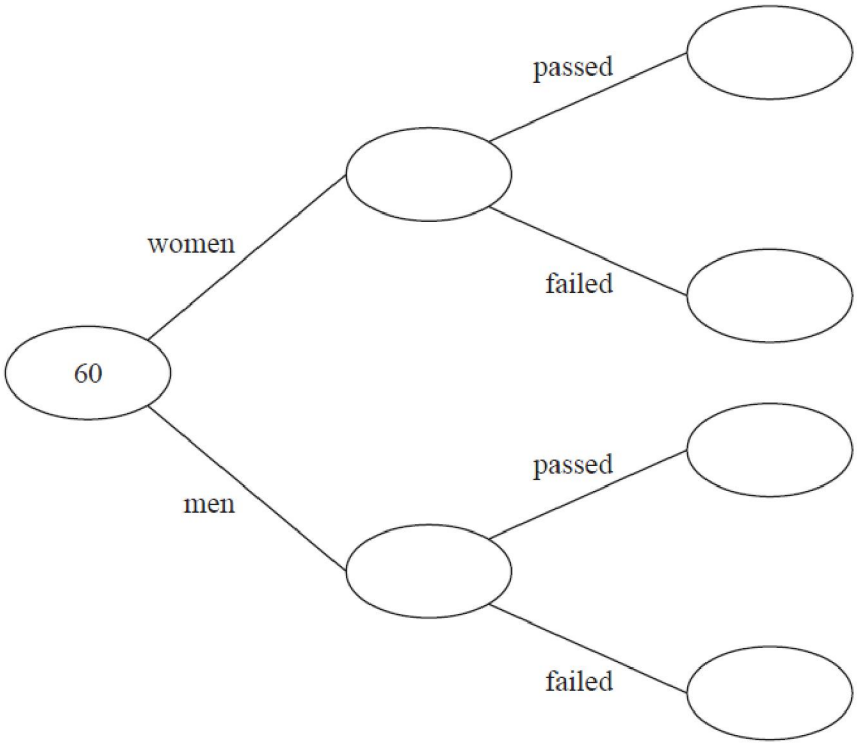
2 Write 27% as a fraction.

Question 29 (AO1): (No Calc) 72% of students got this right (3 marks)

12a 60 people each took a driving test one day.

25 of these people were women.
22 of the 60 people failed their test.
20 of the men passed their test.

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



(3)

Question 30 (AO1): 71% of students got this right (2 marks)

12. On Monday Ravi drives for 4 hours.
His average speed is 30 mph.

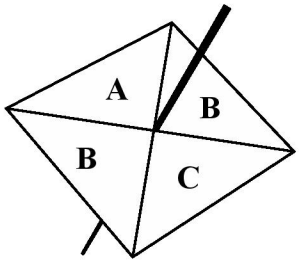
(*a*) How far does Ravi drive on Monday?

..... miles

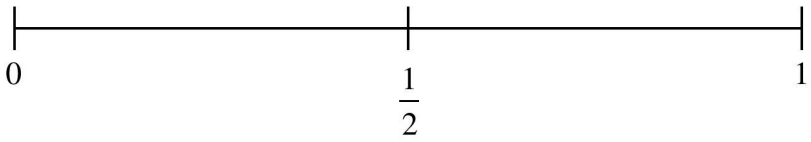
(2)

Question 31 (AO1): (No Calc) 70% of students got this right (2 marks)

6 Sammy spins a fair 4-sided spinner.

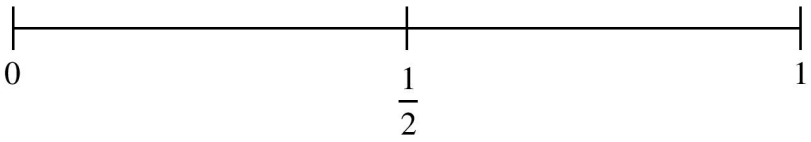


(i) On the probability scale, mark with a cross (×) the probability that the spinner will land on **B**.



(1)

(ii) On the probability scale, mark with a cross (×) the probability that the spinner will land on **F**.



(1)

(Total for Question 6 is 2 marks)

Question 32 (AO1): (No Calc) 70% of students got this right (1 marks)

1 Work out the value of 2^4

.....

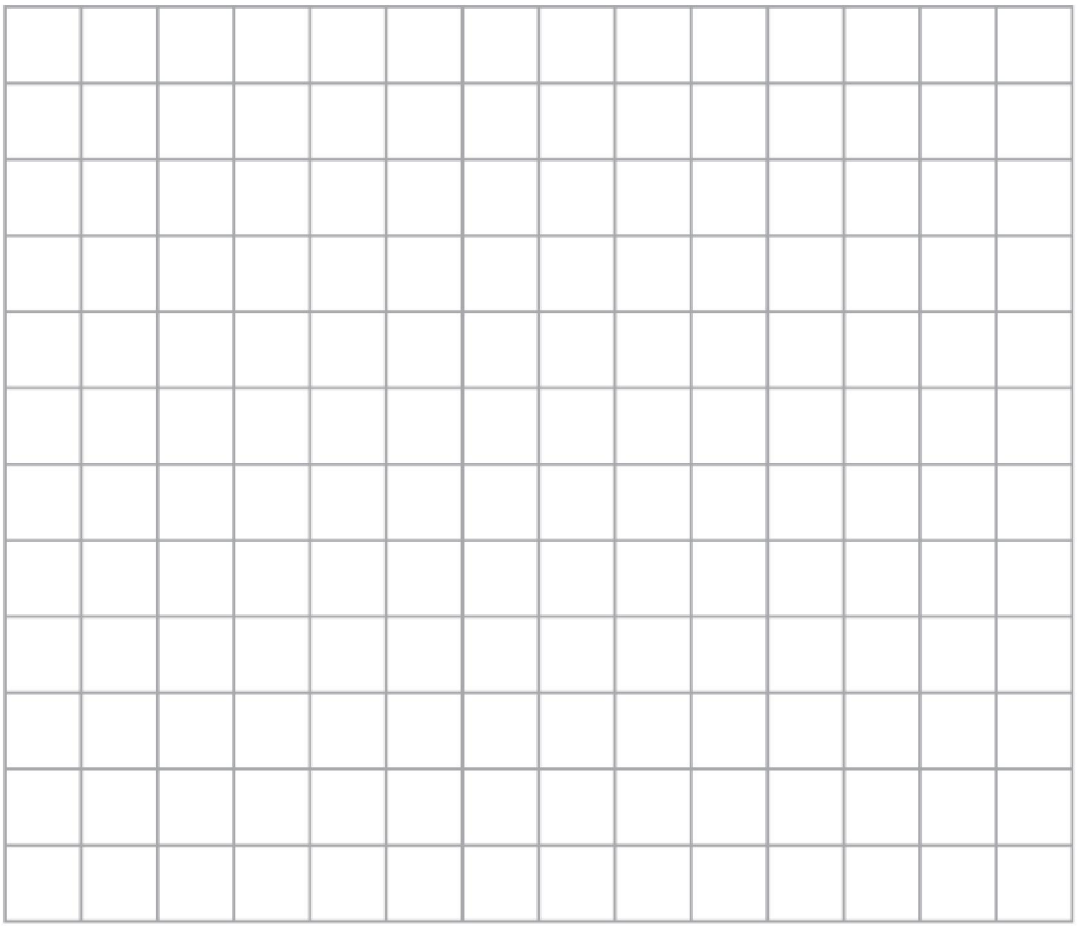
(Total for Question 1 is 1 mark)

Question 33 (AO1): (No Calc) 70% of students got this right (4 marks)

14 Some people were asked if they liked swimming or cycling or running.
The table shows the results for the males and the results for the females.

	Swimming	**Cycling**	**Running**
Male	2	6	4
Female	8	5	5

(*a*) On the grid, draw a bar chart to show this information.



Question 34 (AO1): 69% of students got this right (3 marks)

2. Graham has £10
He wants to buy as many pencils as he can.
Each pencil costs 80 pence.

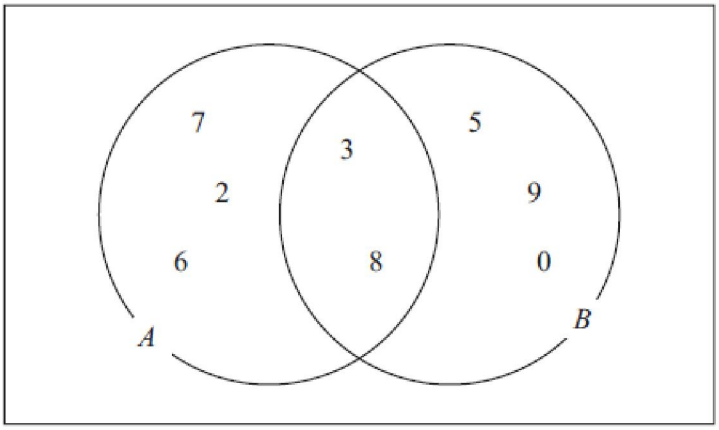
How many pencils can Graham buy?

.....

(Total 3 mark)

Question 35 (AO1): (No Calc) 69% of students got this right (3 marks)

5. Here is a Venn diagram.



(a) Write down all the numbers in set A.

.....

(2)

(b) Write down the numbers that are in set $A \cap B$.

.....

(1)

(Total 3 marks)

Question 36 (AO2): (No Calc) 68% of students got this right (2 marks)

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.

Question 37 (AO1): (No Calc) 68% of students got this right (1 marks)

4 Convert 4.2 metres into centimetres.

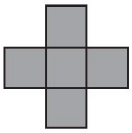
Circle your answer.

[1 mark]

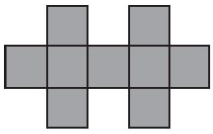
0.42 cm 42 cm 420 cm 402 cm

Question 38 (AO1): (No Calc) 68% of students got this right (3 marks)

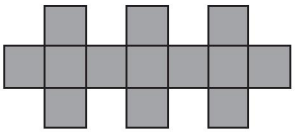
8. Here are some patterns made from squares.



Pattern number 1

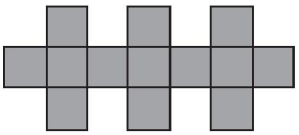


Pattern number 2



Pattern number 3

(a) The diagram below shows part of Pattern number 4
Complete the diagram for Pattern number 4



Pattern number 4

(1)

(b) Complete the table.

Pattern number	1	2	3	4	5
Number of squares	5	9	13		

(1)

(c) Find the number of squares used for Pattern number 10

.....

(1)

(Total 3 marks)

Question 39 (AO1): (No Calc) 66% of students got this right (2 marks)

5 Work out 60% of 70.

.....

(Total for Question 5 is 2 marks)

Question 40 (AO1): (No Calc) 66% of students got this right (3 marks)

14 Work out 172×34

Ext Qn1 (AO1): (No Calc) Only 55% of students got this right(2 mark

16 Here are the ages, in years, of 20 footballers.

17	32	25	41	23	26	29	29	32	30
21	17	40	35	34	28	32	19	27	31

Wayne drew this stem and leaf diagram to show this information.

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

Key: 1|7 represents 17 footballers

Write down two things that are wrong with the stem and leaf diagram.

Ext Qn2 (AO1): (No Calc) Only 54% of students got this right(1 mark

3. Write 7.8365 correct to 2 decimal places.

.....

(Total 1 mark)

Ext Qn3 (AO1): (No Calc) Only 54% of students got this right(2 mark

13 The table shows information about the favourite instrument played by each of 24 students.

Instrument	Number of boys	Number of girls
guitar	6	2
violin	2	5
keyboard	3	2
recorder	1	3

One of the students is chosen at random.

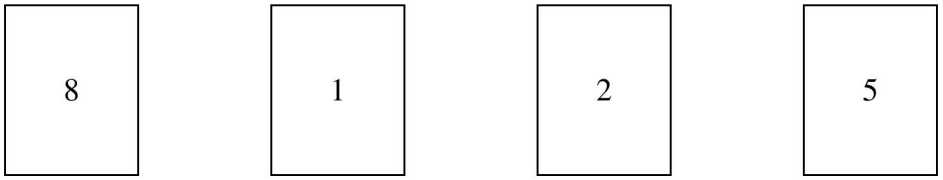
(*b*) What is the probability that this student's favourite instrument is **not** the recorder?

Answers to Qn 1 (AO1): (No Calc) 96% of students got this right

Question	Working	Answer	Mark	Notes
1 (a)		−12 −8 2 5 10	B1	Cao

Answers to Qn 2 (AO1): (No Calc) 90% of students got this right

2 Here are four cards.
There is a number on each card.



(a) Write down the largest 4-digit number that can be made using each card only once.

8521

Answers to Qn 3 (AO1): (No Calc) 88% of students got this right

Question	Working	Answer	Mark	Notes
11 (a)		6	B1	cao

Answers to Qn 4 (AO1): (No Calc) 85% of students got this right

Question		Answer	Mark	Notes
5		5	2	M1 30 – "(16 + 9)" or "30 — 16" — 9 or "30 — 9" — 16 A1 cao

Answers to Qn 5 (AO1): (No Calc) 84% of students got this right

2		70	B1	cao

2

Answers to Qn 6 (AO1): (No Calc) 83% of students got this right

Question	Working	Answer	Mark	Notes
4		2550	B1	Cao

Answers to Qn 7 (AO1): (No Calc) 83% of students got this right

4		210	B1	cao

4

Answers to Qn 8 (AO1): (No Calc) 82% of students got this right

Question	Working	Answer	Mark	Notes
9		No (supported)	P1	for a start to the process to work out the sum of costs of articles to buy, e.g. 1.60 × 2 (= 3.20) or 2.25 + 1.85 + 3.30 (= 7.40) or starts to subtract from £10
			P1	for a complete process to work out the sum of costs of articles to buy, e.g. 1.60 × 2 (= 3.20) + 2.25 + 1.85 + 3.30 (= 10.60) or subtraction of all costs from £10
			C1	for correct conclusion with supporting figures e.g. (£)10.60 or 60p short

Answers to Qn 9 (AO1): (No Calc) 82% of students got this right

7 Here are the ages of 16 men.

40	28	40	37	35	34	29	40
34	33	30	28	32	29	27	27

(a) Complete the table to show this information.

Age	Tally	Frequency
27–29	𝍸 I	6
30–32	II	2
33–35	IIII	4
36–38	I	1
39–41	III	3

Answers to Qn 10 (AO1): (No Calc) 82% of students got this right

Part	Working or answer an examiner might expect to see	Mark	Notes
5	$(23 \times 2) + 1 = 47$	1	This mark is given for the correct answer only

Answers to Qn 11 (AO1): (No Calc) 80% of students got this right

Part	Working or answer an examiner might expect to see	Mark	Notes
7 (a)	(6, –2)	1	This mark is given for the correct answer only

Answers to Qn 12 (AO1): (No Calc) 80% of students got this right

2 Which one of these numbers is a multiple of 12?

Circle your answer.

50 56 48 46

Answers to Qn 13 (AO1): (No Calc) 79% of students got this right

Question		Answer	Mark	Notes
7		1.50	3	M2 for $\frac{60}{2}\times 5$ oe **OR** 150 seen M1 for $\frac{60}{2}$ OR 30 seen OR 60×5 OR 300 seen OR 0.6×5 OR 3 seen A1 for 1.50 Accept 1.5 or 150p with £ crossed out

Answers to Qn 14 (AO1): 78% of students got this right

11.	(*a*)		08 50	1	B1 for 08 50 or 8 50 (am) or 10 to 9
	(*b*)	13 43 – 13 29	14	1	B1 cao

Answers to Qn 15 (AO1): 78% of students got this right

3.	(*a*)		$4m$	1	B1
	(*b*)		$3a$	1	B1
	(*c*)		$4xy$	1	B1

Answers to Qn 16 (AO1): (No Calc) 78% of students got this right

11 How many degrees does the **hour** hand on a clock turn in 6 hours?

Circle your answer.

270° 180° 540° 90°

Answers to Qn 17 (AO1): (No Calc) 78% of students got this right

Question	Working	Answer	Mark	Notes
5		Hexagon drawn	B1	for a polygon drawn with 6 sides

Answers to Qn 18 (AO1): (No Calc) 77% of students got this right

Question		Answer	Mark	Notes
6		4	2	M1 for correct order of operations +7 then ÷3 A1 cao OR M1 for forming the equation $3x - 7 = 5$ and showing intention to add 7 to both sides or divide each term by 3 as a first step A1 cao NB Embedded solutions get M1 mark provided the equation or working is complete.

Answers to Qn 19 (AO1): (No Calc) 77% of students got this right

Part	Working or answer an examiner might expect to see	Mark	Notes
12 (a)	**12** 7 19 18 **8** 26 **30** 15 **45**	1	This mark is given for values (in bold) entered on the table
		1	This mark is given for a complete row of column
		1	This mark is given for a fully correct table

Answers to Qn 20 (AO1): (No Calc) 77% of students got this right

7	(a)		15	M1 A1	for method to find rate of pay, e.g. 120 ÷ 8 cao

Answers to Qn 21 (AO1): (No Calc) 76% of students got this right

Question	Working	Answer	Mark	Notes
6		3	M1	for method to find halfway number, e.g. $(-4 + 10) \div 2$ or a number line with evidence of finding halfway value
			A1	Cao

Answers to Qn 22 (AO1): (No Calc) 76% of students got this right

Question	Working	Answer	Mark	Notes
7		19.25	M1	for a method to carry out the multiplication of 3.89×5 oe or $4 \times 5 - 0.11 \times 5$ oe or digits 1925 seen
			A1	cao

Answers to Qn 23 (AO1): (No Calc) 76% of students got this right

3 What name is given to the **most frequent** item in a list?

Circle your answer.

mean median mode range

Answers to Qn 24 (AO1): (No Calc) 75% of students got this right

9 (a) Solve $y + 25 = 31$

$y = 31 - 25$

$y =$ 6

9 (b) Solve $0.5y = 20$

$y = 20 \div 0.5$

$y =$ 40

Answers to Qn 25 (AO1): (No Calc) 75% of students got this right

13 A point lies on the graph with equation $y = x^2 + x - 1$

The x-coordinate of the point is -4

Circle the coordinates of the point.

(−4, −21) (−4, −9) **(−4, 11)** (−4, 12)

Answers to Qn 26 (AO1): (No Calc) 74% of students got this right

5		33	B1	cao

5

Answers to Qn 27 (AO1): (No Calc) 74% of students got this right

Question	Working	Answer	Mark	Notes
10 (a)(i)		$\frac{4}{9}$	B1	oe
(a)(ii)		0	B1	

Answers to Qn 28 (AO1): (No Calc) 73% of students got this right

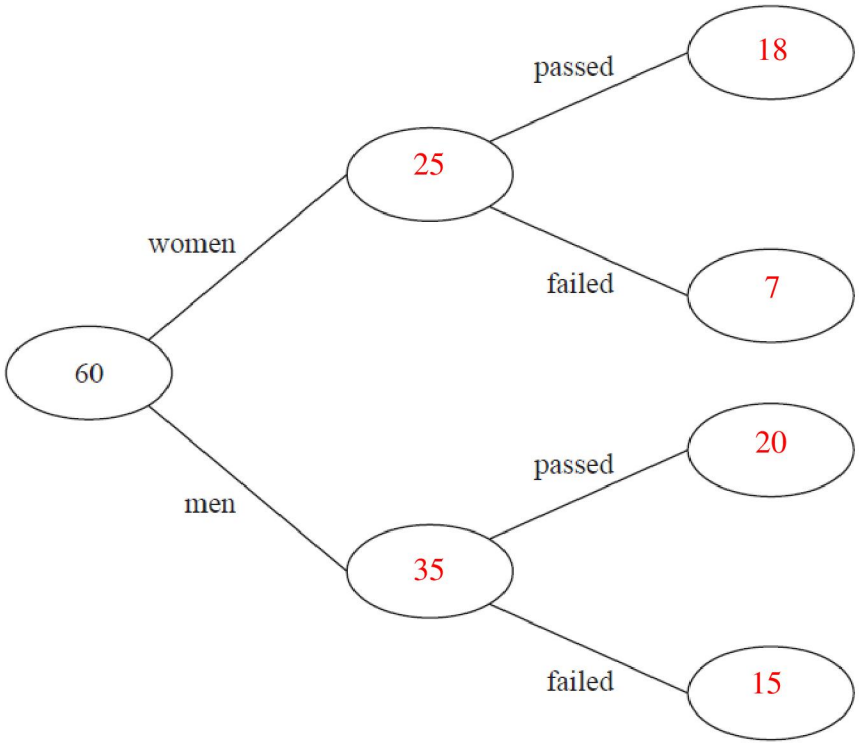
Question	Working	Answer	Mark	Notes
2		$\frac{27}{100}$ oe	B1	

Answers to Qn 29 (AO1): (No Calc) 72% of students got this right

12 60 people each took a driving test one day.

25 of these people were women.
22 of the 60 people failed their test.
20 of the men passed their test.

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



Answers to Qn 30 (AO1): 71% of students got this right

12.	(*a*)		120	2	M1 4 × 30 A1 cao

Answers to Qn 31 (AO1): (No Calc) 70% of students got this right

Question 6 (Total 2 marks)

Part	Working or answer an examiner might expect to see	Mark	Notes
(i)	2 out of 4, so × marked at $\frac{1}{2}$	B1	This mark is given for the correct answer only
(ii)	0 out of 4, so × marked at 0	B1	This mark is given for the correct answer only

Answers to Qn 32 (AO1): (No Calc) 70% of students got this right

Question 1 (Total 1 mark)

Part	Working or answer an examiner might expect to see	Mark	Notes
	$2 \times 2 \times 2 \times 2 = 16$	B1	This mark is given for the correct answer only

Answers to Qn 33 (AO1): (No Calc) 70% of students got this right

Paper 1MA1: 1F			
Question	**Working**	**Answer**	**Notes**
14 a		chart	C1 For key or suitable labels to identify male and female C1 For linear scale C1 For chart (combined or separate) correctly showing data for at least 2 of swim, run, cycle C1 Fully correct chart with axes correctly scaled and labelled.

Answers to Qn 34 (AO1): 69% of students got this right

2.		1000 ÷ 80	12	3	P1 for working in consistent units with correct operation (maybe repeated subtraction from £10 or repeated addition to get to £10) P1 for 12.5 or 12 with remainder 4 A1 cao

Answers to Qn 35 (AO1): (No Calc) 69% of students got this right

5.	(a)		2, 3, 6, 7, 8	2	B2 for 2, 3, 6, 7, 8 (B1 for any 3 or 4 correct, no extras **or** 2, 3, 6, 7, 8 seen with at most one extra)
	(b)		3,8	1	B1 cao

Answers to Qn 36 (AO2): (No Calc) 68% of students got this right

Part	Working or answer an examiner might expect to see	Mark	Notes
11 (a)	$30 \div 8 = 3.75$	1	This mark is given for dividing 30 by 8
	3.75 to the next whole number (of adults) is 4	1	This mark is given for the correct answer only

Answers to Qn 37 (AO1): (No Calc) 68% of students got this right

4 Convert 4.2 metres into centimetres.

Circle your answer.

0.42 cm 42 cm 420 cm 402 cm

Answers to Qn 38 (AO1): (No Calc) 68% of students got this right

8.	(a)		Correct diagram	1	B1 for correct diagram, accept squares drawn at either end shaded or unshaded. Ignore internal lines.
	(b)		17, 21	1	B1 cao
	(c)		41	1	B1 cao

Answers to Qn 39 (AO1): (No Calc) 66% of students got this right

Question 5 (Total 2 marks)

Part	Working or answer an examiner might expect to see	Mark	Notes
	0.6×70 or $\frac{60}{100} \times 70$	M1	This mark is given for a method to convert percentage to a decimal of fraction
	42	A1	This mark is given for the correct answer only

Answers to Qn 40 (AO1): (No Calc) 66% of students got this right

Question	Working	Answer	Mark	Notes
14	172 × 34 5160 688+ 5848 100 70 2 30: 3000 2100 60 4: 400 280 8 = 3000 + 2100 + 60 + 400 + 280 + 8	5848	M1 M1 A1	for complete method with relative place value correct (addition not necessary) for addition of all appropriate elements cao

Ext ANSWERS 1 (AO1): (No Calc) Only 55% of students got this rigl

Question	Working	Answer	Mark	Notes
16		2 errors identified	C2	for 2 correct errors spotted from the list below
			(C1)	(for 1 correct error spotted from the list below) Errors: incorrect key; units should be years for a missing entry (of 29) for incorrect order in the "4" leaf

Ext ANSWERS 2 (AO1): (No Calc) Only 54% of students got this rigl

3.			7.84	B1	cao

Ext ANSWERS 3 (AO1): (No Calc) Only 54% of students got this rigl

Question	Working	Answer	Mark	Notes
13 (b)		$\frac{20}{24}$	M1	for $\frac{20}{a}$ oe, where $a > 20$ or ft their diagram or $\frac{b}{24}$ oe, where $0 < b < 24$ or ft their diagram
			A1	for $\frac{20}{24}$ oe or ft their diagram