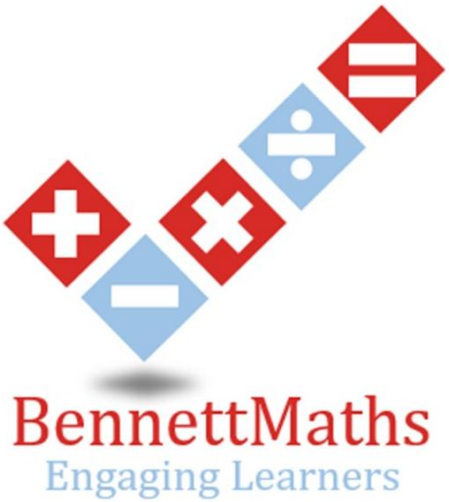


Name: _____

BennettMaths Edexcel 2H – Part 1

1 (*a*) Work out the value of $\dfrac{\sqrt{1577}-32}{2.3^2-5}$

Write down all the figures on your calculator display.

.....

(2)

(*b*) Work out the value of the reciprocal of 0.8

.....

(1)

(Total for Question 1 is 3 marks)

---

2 Write 84 as a product of its prime factors.

.....

(Total for Question 2 is 2 marks)

---

3 There are 48 counters in a bag.
There are only blue counters and green counters in the bag.

number of blue counters : number of green counters = 1 : 3

Hermione has to work out how many blue counters are in the bag.

She says,

"There are 16 blue counters in the bag because 1 is a third of 3 and 16 is a third of 48"

Is Hermione correct?
You must give a reason for your answer.

.....

.....

.....

(Total for Question 3 is 1 mark)

---

4 $-3 < n \leq 7$

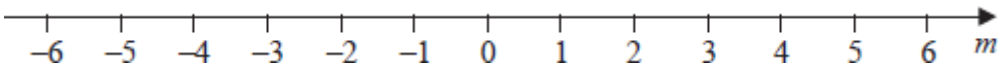
n is an integer.

(a) Write down the greatest possible value of n.

.....

(1)

(b) On the number line below, show the inequality $-5 < m \leq 2$



(2)

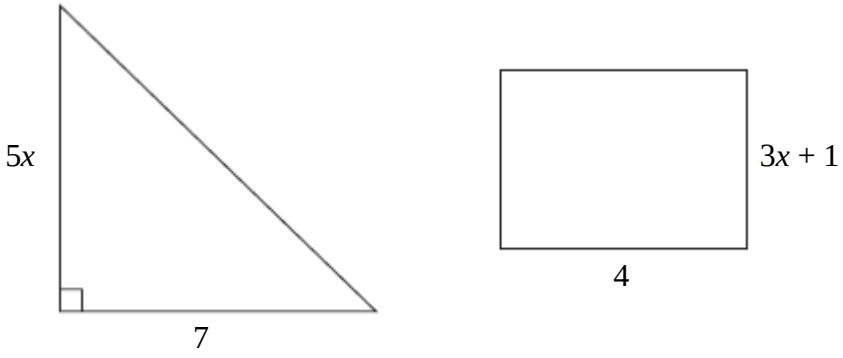
(*c*) Solve $\frac{4}{5}h - 6 < 10$

.....

(3)

(Total for Question 4 is 6 marks)

5 Here is a triangle and a rectangle.



All measurements are in centimetres.

The area of the triangle is 18 cm^2 greater than the area of the rectangle.

Work out the value of x.

x = ...

(Total for Question 5 is 4 marks)

6 Last month a farmer sold 900 kg of vegetables.
65% of these vegetables were turnips and parsnips.

weight of turnips : weight of parsnips = 9 : 4

Calculate the weight of parsnips the farmer sold.

..... kg

(Total for Question 6 is 3 marks)

7 A number, d, is rounded to 2 decimal places.
The result is 2.73

Complete the error interval for d.

..... $\leq d <$ .....

(Total for Question 7 is 2 marks)

---

8 Ronnie buys a house with a value of £280 000
The value of Ronnie's house increases by 2.5% each year.

Tom buys a house with a value of £260 000
The value of Tom's house increases by 6% each year.

At the end of 2 years, whose house has the greater value?
You must show how you get your answer.

(Total for Question 8 is 4 marks)

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9 The cumulative frequency table gives information about the ages of 78 people going on a cruise.

Age (a years)	**Cumulative frequency**
$20 < a \leq 30$	18
$20 < a \leq 40$	36
$20 < a \leq 50$	57
$20 < a \leq 60$	72
$20 < a \leq 70$	78

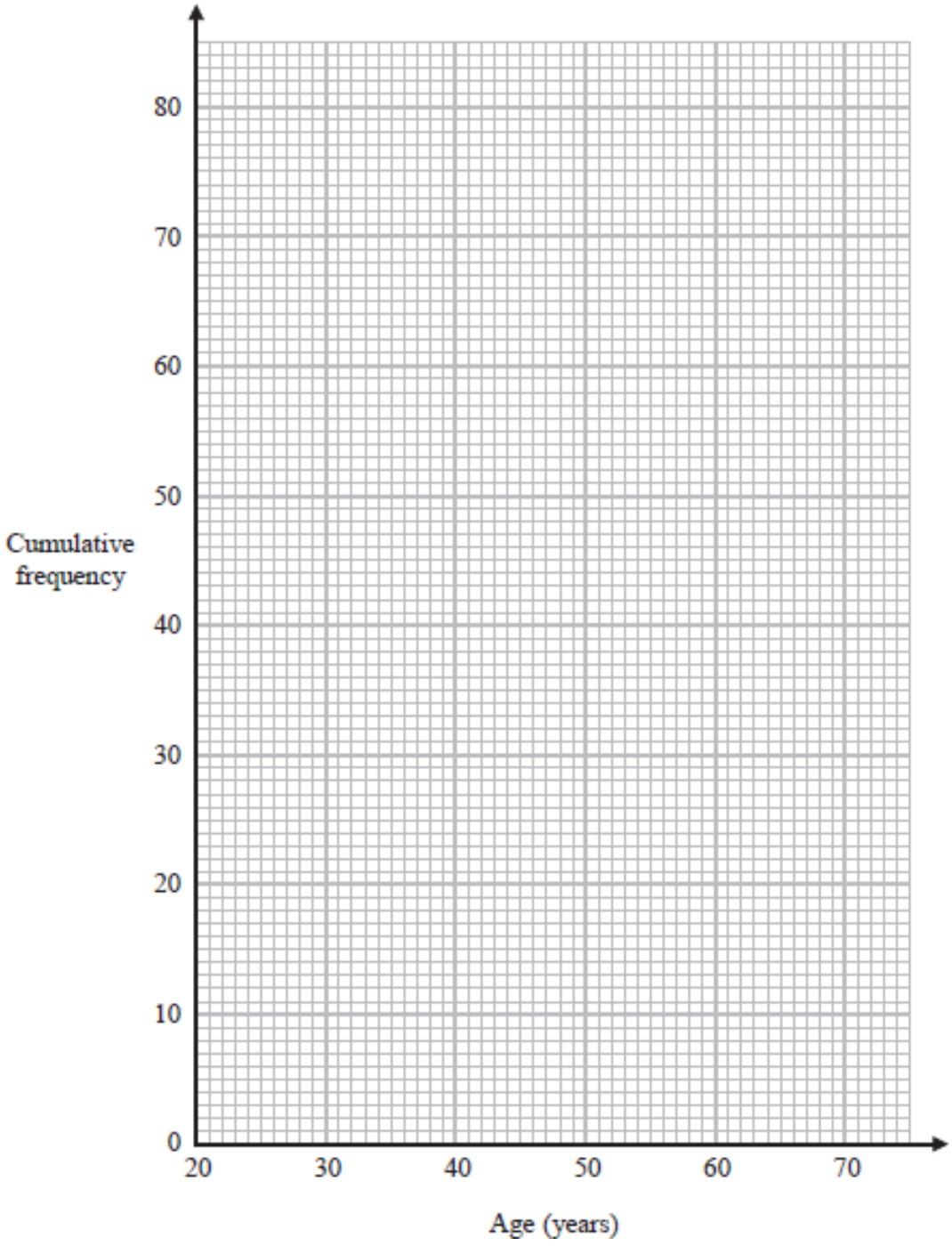
(a) On the grid on the next page, draw a cumulative frequency graph for this information.

(2)

(b) Use your graph to find an estimate for the median age.

..... years

(1)



(Total for Question 9 is 3 marks)