

Edexcel GCSE Mathematics Calculator 2023 Higher Paper 3 Revision Worksheet

1. (a) Write 468 000 in standard form.
(b) Write 5.037×10^{-4} as an ordinary number.
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2. Here is a biased spinner with outcomes A, B, C, and D. The probabilities are: $A = 0.4$, $B = 0.21$, $C = 0.32$, $D = 0$.
 3. Luka will spin the spinner 200 times.
Work out an estimate for the number of times the spinner will land on A.
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3. The table gives information about the temperature, T °C, at midday for each of 50 cities in the UK on Tuesday:

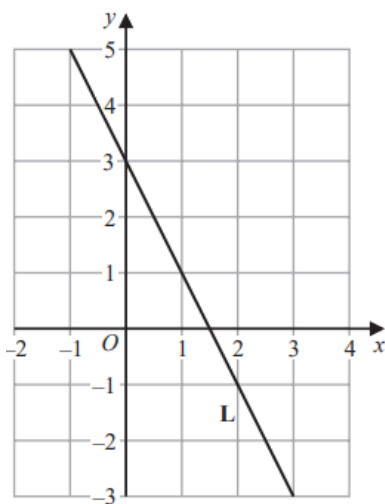
Temperature (T °C)	Frequency
$10 < T \leq 15$	2
$15 < T \leq 20$	8
$20 < T \leq 25$	13
$25 < T \leq 30$	21
$30 < T \leq 35$	6

- (a) Calculate an estimate for the mean temperature.
 - (b) Seija says, "The median temperature is 22.5 °C because 22.5 is the middle number in the middle group." Is Seija correct? Give a reason for your answer.
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4. Jenna is asked to show the inequality $-3 < x \leq 4$ on a number line. Here is her answer:
[Image: Number line from -5 to 5 with circles at -3 and 4, and a line between them]
 - (a) Write down two mistakes Jenna has made.
 - (b) Work out the greatest integer that satisfies the inequality $5y - 7 < 16$.
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5. Ali buys packs of balloons and boxes of pencils. There are 30 balloons in each pack and 24 pencils in each box. Ali buys exactly the same number of balloons and pencils. Work out how many packs of balloons and how many boxes of pencils she could have bought. You must show all your working.
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6. A company orders a large number of plates from a factory. It would take 30 hours to make all the plates using 4 machines. How many machines are needed to make all the plates in 6 hours?
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7. Riley travelled by car and by aeroplane. He travelled 143 miles by car at an average speed of 55 miles per hour. Riley then travelled for 5 hours and 20 minutes by aeroplane. Work out, in hours and minutes, Riley's total travelling time.
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8. The diagram shows a solid cube placed on a horizontal table. The pressure on the table due to the cube is 3.5 newtons/cm^2 . The force exerted by the cube on the table is 504 newtons. Show that the total surface area of the cube is less than 900 cm^2 .
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9. The line L is shown on the grid below.



Find an equation for L .

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10. Make m the subject of $k = p + \frac{2m}{5}$.
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11. The floor plan of a house is drawn using a scale of 1 : 50. On the plan, a room in the house has a floor area of 48 cm^2 . Work out the real area of the floor of this room. Give your answer in m^2 .
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12. The diagram shows a shaded sector POQ of a circle with centre O and radius 6.2 cm. The area of the shaded sector is 82.6 cm^2 . Calculate the size of angle x . Give your answer correct to 3 significant figures.