

L1 Christmaths quiz

Answers

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1. Debenhams has hired 400 store Santas. **If each Santa sees 125 children a day for 30 days, how many children do the Store's Santas see?** $400 \times 125 = 50000$ $50000 \times 30 = 1,500,000$ children
2. **If sugar mice cost £0.89 a dozen, how much would it cost to buy Sugar Mice for a school with 400 students?** $400 \div 12 = 33.3333$ say $34 \times £0.89 = £30.26$
3. 3 elves each an equal number of soap bars into gift boxes. There are 108 bars of soap altogether and 4 bars of soap in each gift box. **How many bars does each elf pack and how many boxes will they need.**
 $108 \div 3 = 36$ bars each. $36 \div 4 = 9$ boxes. Each elf needs 9 gift boxes (27 boxes total)
4. 6 elves have to pack 726 toy cars. **How many cars does each elf pack?** $726 \div 6 = 121$
5. An elf is checking his overtime wages. He gets £5.80 per hour plus 45p overtime and 6p bonus per hour. **How much is this in total per hour?** $£5.80 + £0.45 + £0.06 = £6.31$
6. In one week the elf works for 40 hours plus 15 hours overtime. **How much does he get paid for his week's work?** $(40 \times £5.80 = £232.00) + (15 \times £6.31 = £94.65) = £326.65$
7. **Round this amount to the nearest pound.** $£327.00$

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8. One of the elves is a supervisor. He gets £6.20 per hour, plus 62p overtime and 12p bonus. **How much is this per hour and if in one week he works for 37 hours plus 20 hours overtime how much will he earn in total for that week?** $£6.20 + £0.62 + £0.12 = £6.94$. $(37 \times £6.20 = £229.40) + (20 \times £6.94 = £138.80) = £368.20$
9. Little Billy has eaten $\frac{3}{4}$ of a giant Toblerone. **Which fractions are the same as $\frac{3}{4}$?**
 $\frac{6}{16}$ $\frac{2}{8}$ $\frac{4}{12}$ $\frac{5}{20}$ $\frac{3}{12}$ $\frac{12}{16}$ $\frac{4}{16}$ $\frac{9}{12}$ $\frac{15}{20}$ $\frac{6}{8}$ $\frac{10}{15}$
10. **The first garage you come to sells a litre of petrol for £1.34 – you know that you need 15.5 litres of petrol, how much would that cost you?** $£1.34 \times 15.5 = £20.77$
11. You decide that the garage are charging too much so you drive a bit further and find another garage who are charging £1.27 per litre – **How much will 15.5 litres of petrol cost you?** $£1.27 \times 15.5 = £19.685$ so $£19.69$
12. **What is the difference between 15 litres of petrol bought from the first garage and 15 litres bought from the second garage?** $£20.77 - £19.69 = £1.08$
13. **How many millimetres in 2.5 centimetres?** 25 mm
14. The tape is 3.5 metres long. **How many centimetres is that?** 350 cm

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15. The sheet of wrapping paper I have is 45cm wide and 1.2m long – **What is the surface area of the wrapping paper?** $0.45 \times 1.2 = 0.54 \text{ m}^2$ or $45 \times 120 = 5400 \text{ cm}^2$
16. I have bought my guinea pig a new run for Christmas, it measures 1m wide by 2m long I want to wrap a ribbon around the perimeter – **How much ribbon will I need?**
 $1 + 2 + 1 + 2 = 6\text{m}$
17. Each large roll of ribbon has 20 metres. Each package takes 30 cm of ribbon. **How many packages can be wrapped?** $2000\text{cm} \div 30 = 66.6667$ packages. So **66 packs in total (remember to round down not up).**
18. A garden centre keeps a record of how many Christmas trees they sell each day.

10 th December	$3 \times 15 = 45$ trees
11 th December	$5 \times 15 = 75$ trees
12 th December	$4 \times 15 = 60$ trees
13 th December	$7 \times 15 = 105$ trees

How many trees were sold on 10th December? 45 trees

19. **How many more trees were sold on 13th December than 12th December?**
 $105 - 60 = 45$
20. Amy is busy cooking; each batch of 48 cookies that Amy makes takes 20 minutes in the oven. If the oven is on for 3 hours and 55 minutes (15 minutes for preheating). **How many cookies did Amy make?** 11 batches in 3 hours and 40mins = 528 cookies

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21. Jim is making gingerbread men. He uses 2 raisins for eyes and 3 raisins for buttons for each gingerbread man. He buys 4 boxes of raisins, each with 120 raisins in it. How many dozens of gingerbread men can he make? **480 raisins = 96 Gingerbread men (8 dozen)**
22. These are the numbers of presents that members of Amanda's maths class got:

John: 5	Patrick: 1	Greg: 9	Mark: 2	Sarah: 6
Paula: 3	Collette: 4	Kim: 5	Lee: 0	June: 5

Work out the mean number of presents.

Total no. presents = 40. Mean = $40 \div 10 = 4$.

23. **What is the range of presents?** $9 - 0 = 9$

24. The distance from Nazareth to Bethlehem is about 70 miles and could have taken Mary and Joseph 5 days travelling along the rough route using a donkey and walking beside it. **BUT if it took a week then how many miles did they cover in a day?**

$70 \div 7 = 10$ miles a day

25. One of the Wise Men travelled 650 miles to get from his home town to Bethlehem. **If he travelled for 5 miles each day, how many days did his journey take?**
 $650 \div 5 = 130$ days