



Christmas Mental Maths Challenge Cards

Christmas Mental Maths

1. Solve these problems in your head.

- If a present in a cube shaped box has one side measuring 5cm, how much wrapping paper would be needed to cover the area of the whole cube?
- Presents cost £15.99, £32.99 and 24.99. What is the total cost of the three presents?



Christmas Mental Maths

2. Solve these problems in your head.

- Dave is making mince pies, which of these amounts is closest to 120g?

120.005g, 119.599g, 120.100g, 119.900g

- If the Christmas temperature in The Gambia is 31°C but it is -42°C in Russia, what is the difference in temperatures between these two countries?



Christmas Mental Maths

3. Solve these problems in your head.

- The restaurant bill for the family pre-Christmas meal comes to £135.75. They need to divide it by 3, what do they pay each?
- In the restaurant the family of nine all ordered Christmas pudding which was £3.99 per person, what was the total cost for all nine people?



Christmas Mental Maths

4. Solve these problems in your head.

- a) One mince pie has 289 calories. How many calories in two mince pies?
- b) How many calories in four mince pies?



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5. Solve these problems in your head.

- a) Andy's chocolate bar is the shape of a triangular prism. How many faces and vertices does it have?
- b) Jane's packet of chocolate sweets is in a hexagonal prism tube. How many faces and vertices does it have?



Christmas Mental Maths

6. Solve these problems in your head.

- a) A shop buys in bags of chocolate coins for 23p each. How much does the shop pay for a box of 1000 bags?
- b) If the same shop sells the bags of coins for £1 each, how much profit does it make on selling 100 bags?



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7. Solve these problems in your head.

- a) Which two pieces of Christmas cake make a whole cake?
 $\frac{1}{2}$ $\frac{1}{4}$ $\frac{3}{8}$ $\frac{9}{12}$ $\frac{6}{10}$
- b) Which two decimal fraction pieces of mince pie make a whole one?

0.3, 0.25, 0.6, 0.5, 0.8, 0.75



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8. Solve these problems in your head.

- a) A shop has sold 349 bags of chocolate coins out of the box of 1000, how many bags does it have left?
- b) The bakery around the corner made 500 mince pies today and has sold 123 of them, how many does it have left?



Christmas Mental Maths

9. Solve these problems in your head.

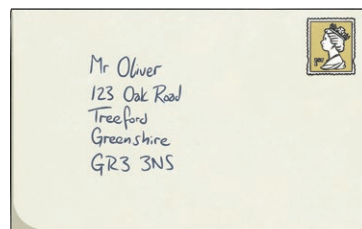
- a) Which numbers on an advent calendar are multiples of seven?
- b) Which numbers on an advent calendar are cube numbers?



Christmas Mental Maths

10. Solve these problems in your head.

- a) It took the postman from 6:30 until 15:15 to deliver yesterday's Christmas post. How long did it take?
- b) The Christmas parcel delivery lady started her delivery round at 8:15am and finished at 5:50pm, how long was her shift?



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11. Solve these problems in your head.

- a) Adding up her savings, Susan has one hundred 50p pieces, how much did she have in total?
- b) Susan added her hundred 50p pieces to her hundred 20p pieces. How much did she have in total?



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12. Solve these problems in your head.

- a) In the Christmas sales, a jumper had 25% off. The original price was £16, what is the sale price?
- b) Another shop has a 50% off sale, what is the sale price of the winter coat that was £119 full price?



Christmas Mental Maths Answers

- 1. a) 150cm^2
b) £73.97
- 2. a) 120.005g
b) 73°C difference
- 3. a) £45.25
b) £35.91
- 4. a) 578 calories
b) 1156 calories
- 5. a) 5 faces, 6 vertices
b) 8 faces, 12 vertices
- 6. a) £230
b) £77
- 7. a) $\frac{1}{4}$ and $\frac{9}{12}$
b) 0.25 and 0.75
- 8. a) 651 bags left
b) 377 pies left

Christmas Mental Maths Answers

- 9. a) 7, 14, 21
b) 1 and 8
- 10. a) 8 hours 45 minutes
b) 9 hours 35 minutes
- 11. a) £50
b) £70
- 12. a) £12
b) £59.50