

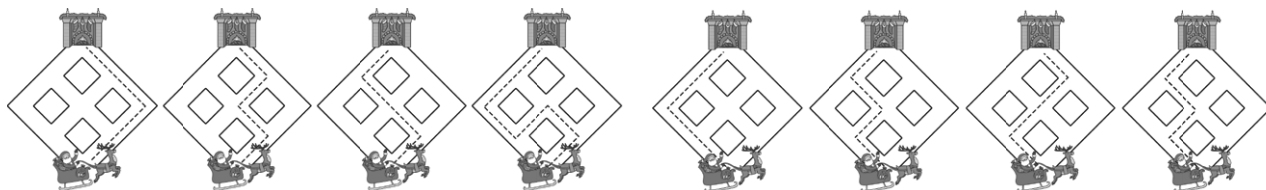
Christmas Maths Challenge Baubles **Answers**

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- Which crackers do you need to pull to score: a) 8 points b) 7 points c) 5 points.
a) $6 + 2, 3 + 5$ b) $6 + 1, 5 + 2, 4 + 3$ c) $4 + 1, 2 + 3$
- Which different coins could you use to pay for two mince pies?
 $5p + 5p, 2p + 2p + 1p + 5p, 10p, 2p \times 5, 1p \times 10, 2p \times 4 + 1p \times 2, 5p + 1p \times 3 + 2p, 5p + 1p \times 5, 2p \times 3 + 1p \times 4, 2p \times 2 + 1p \times 6$
- Pick a pair of puddings and add the 2 numbers together. Keep doing this to see how many answers you get. Now try it by taking away.
 $8 + 3 = 11, 8 + 2 = 10, 8 + 5 = 13, 3 + 2 = 5, 3 + 5 = 8, 2 + 5 = 7, 8 - 2 = 6, 8 - 3 = 5, 8 - 5 = 3, 3 - 2 = 1, 5 - 2 = 3, 5 - 3 = 2$
- A candy cane costs less than 20p. How much could the candy cane cost if you paid with exactly 3 coins?
 $1p + 1p + 1p, 1p + 1p + 2p, 1p + 2p + 2p, 2p + 2p + 2p, 1p + 2p + 5p, 2p + 2p + 5p, 1p + 1p + 10p, 1p + 2p + 10p, 2p + 2p + 10p, 1p + 5p + 10p, 2p + 5p + 10p$
- Three penguins laid 23 eggs in total. Each penguin laid an odd number of eggs. How many eggs did each penguin lay? Find all the different ways the penguins could have done this.
 $11 + 9 + 3, 11 + 7 + 5, 11 + 11 + 1, 13 + 9 + 1, 13 + 7 + 3, 13 + 5 + 5, 15 + 7 + 1, 15 + 5 + 3, 17 + 5 + 1, 17 + 3 + 3, 19 + 3 + 1, 21 + 1 + 1, 9 + 9 + 5, 9 + 7 + 7$
- Three penguins laid 14 eggs in total. Each penguin laid an even number of eggs. How many eggs did each penguin lay? Find all the different ways the penguins could have done this.
 $2 + 2 + 10, 2 + 4 + 8, 2 + 6 + 6, 4 + 4 + 6$

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- Santa dropped the house number for present he was delivering. What could the house number be?
257, 275, 527, 572, 752, 725
- Help Santa get home by directing him left or right. Now think of all the different ways he can do this.



- Santa is replying to wish lists and can write 25 a day. How many days would it take him to make 300 replies?
12 days
- How many triangles can you count on the Christmas tree?
24
- How many rectangles can you count on the Christmas present?
25

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12. The reindeers eat 20g of food for breakfast, lunch and dinner. How many grams of food will they eat in 5 days?
300g

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13. A roll of wrapping paper covers 6 presents. How many rolls of wrapping paper would be needed to wrap 30 presents?
5 rolls
14. This gift costs £1. What coins could you use to pay for it? You can only use silver coins.
50p + 50p, 50p + 20p + 20p + 10p, 50p + 20p + 10p x 3, 50p + 20p + 20p + 5p x 2, 50p + 20p + 5p x 6,
50p + 10p x 5, 50p + 20p + 10p + 5p x 4, 10p x 10, 5p x 20, 20p x 5, 10p x 5 + 20p x 2 + 5p x 2, 20p x 4 + 5p x 4,
20p x 4 + 10p x 2, 20p x 3 + 10p x 4, 20p x 3 + 5p x 8, 20p x 4 + 10p x 2
15. It takes Santa takes 3 hours to get to China, 7 hours to get to Australia, 11 hours to get to the UK and 12 hours to get home to the North Pole. How long was he travelling for?
33 hours
16. I have 5 trees to decorate. I have 55 baubles, 20 pieces of tinsel, and 10 cans of snow spray. How many of each can I use on each tree if I share them equally?
11 baubles, 4 pieces of tinsel and 2 cans
17. The elves love collecting snowflakes. Some have 3 points, some have 4 points and some have 5 points. If they catch 3 snowflakes, what total numbers of points could they have? For example, three snowflakes with 3 points would have 9 points in total.
 $3 + 3 + 3 = 9$, $3 + 3 + 4 = 10$, $3 + 4 + 4 = 11$, $4 + 4 + 4 = 12$, $4 + 4 + 5 = 13$, $4 + 5 + 5 = 14$, $5 + 5 + 5 = 15$