



Nathan opens a window on his advent calendar at random. The calendar is numbered 1-24. What is the probability that he will have opened a window that is a multiple of 5?



**2** The perimeter of this shape is 133 cm. Calculate the length of the missing side...

**3** Calculate  $-8 + (-4)$

**4** Lucky Todd got 32 presents!  $\frac{3}{8}$ 's of them were toys. How many of his presents were toys?

**5** Calculate  $0.25 - 1.2 + 2.017$

**6** Write 0.8 as a fraction and a percentage.

**7** What is  $\sqrt{900}$ ?

**8** 3 Christmas lights flash at the same time. Then the red light flashes every 2 seconds, the blue light every 3 seconds and the green light every 5 seconds. After how long will the lights flash at the same time again?

**9** There are 2023 calories in seven mince pies. How many calories are in 9 mince pies?

**10** Calculate the hire purchase price for a console which needs an £80 deposit and 12 payments of £30.

**11** Change  $8\frac{7}{9}$  into a "top-heavy" fraction

**12** Simplify the following expression...  $4b^2 - 5b - b^2 + 6b$

**13** Calculate the missing angle...

**14** How far did Santa fly in 1 hours 15 mins at an average speed of 300 m.p.h.?

**15** Calculate the volume of this present...

**16** If  $m = -1$  and  $c = 2$  calculate :-  $2m^2 - 3c$

**17** Select the prime number(s) from the following list... 21, 23, 25, 27, 28, 29

**18** Solve the equation...  $6x - 5 = -23$

**19** What is the Highest Common Factor of 32 and 80?

**20** Calculate  $\frac{2}{3} - \frac{1}{4}$

**21** Write a rule and complete the table...

Trees (T)	1	2	3	17	?
Baubles (B)	11	19	27	?	195

**22** Calculate the area of this cardboard manger...

**23** Calculate  $40 \div 0.005$

**24** Santa was left 350 millilitres of milk. How many litres is this?

**25** This formula is for cooking a turkey:  
Cooking time in mins = weight in kg  $\times$  45 + 20  
Calculate the cooking time, in hrs and mins, for a 3 kg turkey.

**26** This £60 pair of trainers have 30% off in the Boxing Day sale. How much do you save?

**27** Calculate the missing angle...

**28** Express 28 as a product of prime factors

**29** Max got some new building blocks from Santa. Each block has a height of 10 cm. He stacks them on top of each other to make a tower. When complete, what is the volume of his tower?

**30** The official currency of Lapland is euros. Santa exchanged £300 and received €342. What is the current exchange rate?

**31** What is the bearing FROM Lapland to Glasgow?

# RIGOUR

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Numeracy for Learning, Life and Work



## December CfE 3<sup>rd</sup> Level Calendar

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### #abitofmathseveryday



2	3	4	5	6	7
8	9	10	11	12	13
14	15	16	17	18	19
20	21	22	23	24	25
26	27	28	29	30	31