Maths Challenge Cards

Are you a maths whizz **?**

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⭐ 0, 3, 6, 9... Will 300 be in this sequence? Why/why not?

⭐ The answer is 4.5. What is the question?

⭐ 3, 6, 12, 24... continue this sequence, which is nearest to 150?

⭐ What is the difference in temperature between -16°C and 4°C?

⭐ The answer is 10.6. What is the question?

Year 6

⭐ What is the total of the ticket money collected?

⭐ 7/10s of the takings from the tickets was given to charity. How much was this?

⭐ 3/9s of the people who came bought ice-creams. How much money was collected?

630 people go to a show. Programmes cost £2.80
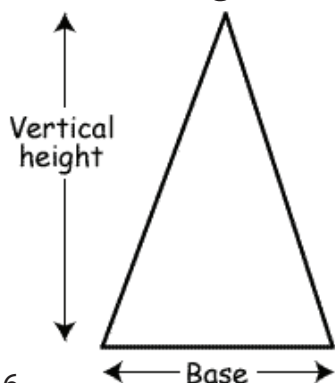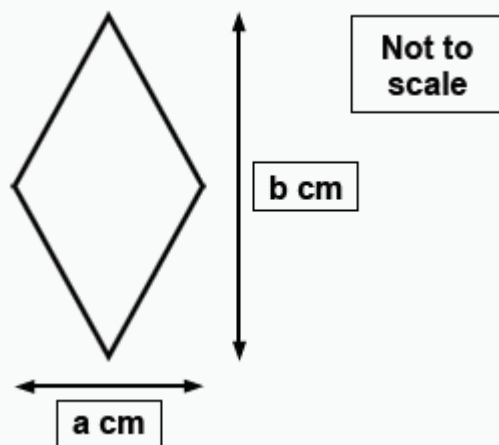Each ticket costs £2.90   Ice creams cost £1.50

Year 6

	Square number	Even number	Odd number	<12
factor of 30				
multiple of 3				
multiple of 2				
> 8				

⭐ Draw this grid. Write the numbers 1 to 16 on small pieces of paper. Place the numbers on the grid so that they follow the rules.

Year 6

⭐Look at the shape, which is symmetrical. Given that a=4 and b=8. What is the area of the shape?
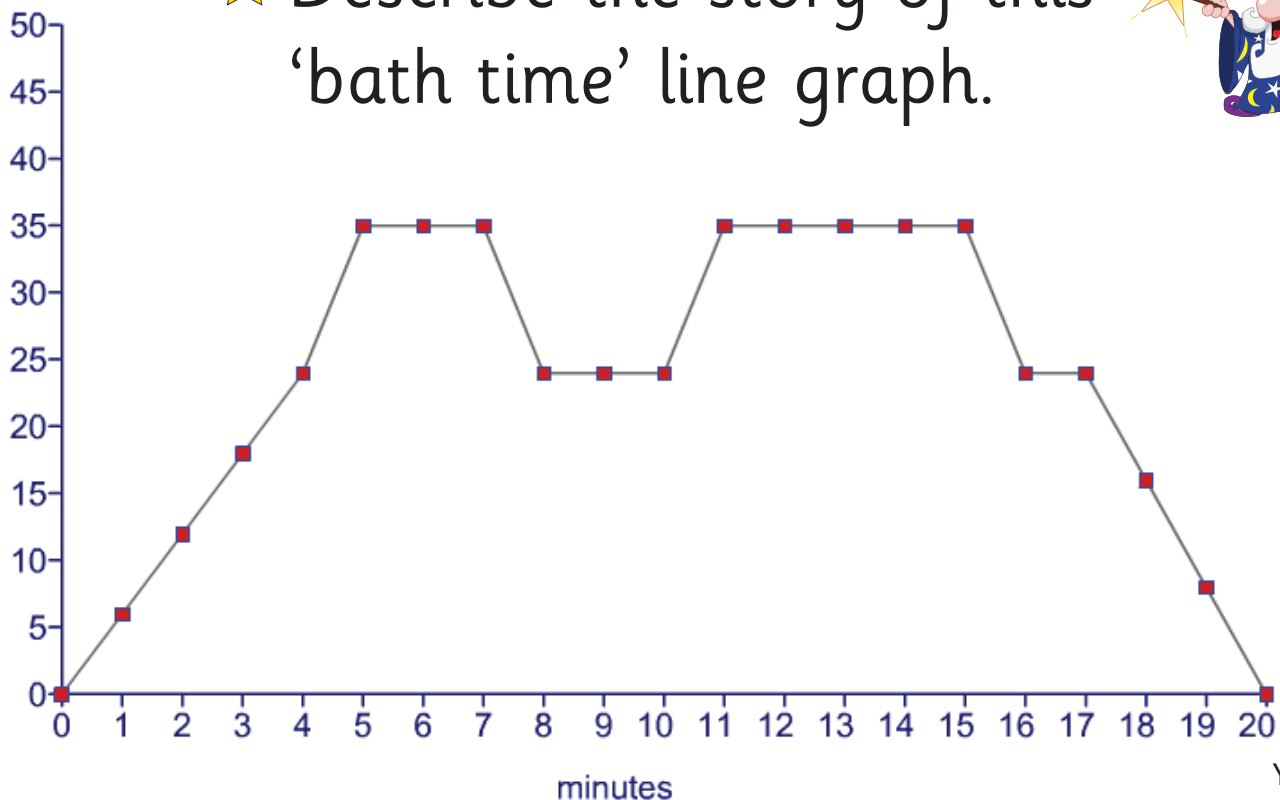
Not to scale

b cm

a cm

Vertical height

Base

⭐The base of the traingle is 6cm and the vertical height is 5cm.
What is the area?

Year 6

⭐ Describe the story of this 'bath time' line graph.

water level (cm)

50 —
45 —
40 —
35 —
30 —
25 —
20 —
15 —
10 —
5 —
0 —

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

minutes

Year 6

⭐ Write 6/10 as a decimal number.

⭐ I have £1.00. I spend 45%. How much do I have left?

⭐ Order these fractions smallest to largest.
1 1/4 , 2 3/4 , 1/4, 1 1/2 , 2 1/4 , 1 3/4 , 2 1/2

⭐ Draw a diagram with 70% shaded.

⭐ Draw a diagram with 0.25 shaded.

⭐ How many sixths are equilvalent to 1/3?

Year 6

⭐Give 5 numbers where the mean is forty.

⭐Give 5 numbers where the mean is forty AND the median is nine.

⭐Give 7 numbers where the mean is eighty.

⭐Give 7 numbers where the mean is eighty AND the median is thirteen.

⭐Write your own problem similar to the ones above.

mean median mode mean median mode mean median mode

Number of matches in a box						
48	49	50	51	52	53	54
	✔	✔	✔	✔		✔
	✔	✔				✔
	✔					

⭐Jill counts the matches in 10 boxes. She works out that the mean number of matches in a box is 50.

⭐ Here are her results for 9 boxes. Calculate how many matches are in the 10th box.

Year 6

Pupils who receive more than five pounds per week

🟥	yr 4	20
🟩	yr 5	70
🟦	yr 2	25
🟨	yr 6	110
🟦	yr 3	30
🟪	yr 1	10

265 pupils questioned from year 1 to year 6.

⭐Estimate the percentage of the pie chart for each class.
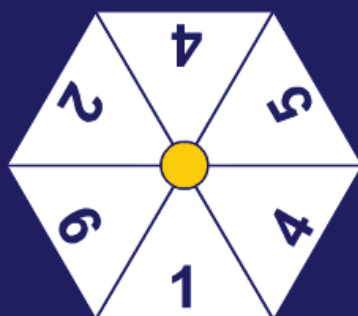
⭐ Now work out the exact percentages with a calculator.

⭐How accurate were your estimates?

Year 6

⭐Who's spinner is more likely to spin a 2? Why?

⭐Compare the chances of the 3 spinners spinning an odd number.

⭐Carol says " I have the greatest chance of spinning a square number". Explain why she is correct.

⭐Write 3 of your own problems about the spinners.

Miranda's   Carol's   Phil's

Year 6