Word Problems

Paper 3

16. The supermarket had a sale on their bottles of lemonade. Instead of selling them for 80p per bottle, they sold them for 55p per bottle.
They sold 200 bottles of lemonade in a week.
How much less did they take by selling at the lower price?

Answer: ..... [3]

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15. A box contains 2 blue pencils, 3 green pencils and 4 red pencils. If I pick a pencil from the box at random (with my eyes shut), what is the probability that
    a. I will pick out a green one?

    Answer: ..... [1]

    b. I will pick a pencil that isn't red?

    Answer: ..... [1]

14. Daniela is travelling from London to Birmingham.
    a. The distance from London to Birmingham is 189.5 km. Convert the distance she is travelling to meters.

    Answer: ..... [1]

    b. The journey takes 2.25 hours, if Daniela leaves London at 10.18 am, what time will she arrives in Birmingham?

    Answer:..... [1]

22. James cycles 4000m at 10 metres per second. Tom takes 100 seconds more to cycle the same distance. At what speed does Tom cycle?

Answer: _____ metres per second [3]

20. A group of children are playing a game where they can score either 2, 3 or 5 points on each turn. The children have had 8 turns each and recorded their scores in a table, but some of the entries have been deleted. Fill in the missing numbers to give a complete set of scores.

Name	**2 points**	**3 points**	**5 points**	**Total Score**
Carl	1	6	1	25
Alex	4	2		
Yusuf		3		25
Jing				35
Charlotte				18

[6]

10. Simon and Fiona are sharing a cupboard. If Simon's things take up $\frac{2}{5}$ of the space and Fiona's things take up $\frac{2}{7}$ of the space, what fraction of the cupboard is empty?

Answer: _____ [3]

19. Sachin can clean his flat in 3 hours, and Peter can clean the same flat in 6 hours. Calculate how long it will take to clean the flat if they work together.

Answer: _____ hours [4]

17. The mean (average) of seven numbers is 9. One number is removed and the mean increases to 10. Find the number which was removed.

Answer: _____ [3]

16. John takes the train to school from Brixton to West Dulwich every day. Here is part of his train timetable:

London Victoria	0740	0755	0809	0825
Brixton	0747	0802	0816	0832
Herne Hill	0749	0804	0818	0834
West Dulwich	0752	0807	0821	0837
Sydenham Hill	0754	0809	0823	0839
Penge East	0757	0812	0826	0842
Kent House	0759	0814	0828	0844
Beckenham Junction	0801	0816	0830	0846

(a) It is an 8 minute walk from John's house to Brixton station, and a 6 minute walk from West Dulwich to his form room at Dulwich College. Work out what time John will arrive at his form room if he leaves home at 0805.

Answer: _____ [2]

(b) On another day, John leaves home at 0803, but the 0809 train from London Victoria is cancelled. Work out how many minutes late John will be for registration, which starts at 0835.

Answer: _____ minutes [3]

14. A bottle contains 150 ml of juice. Alex drinks 50% more than Jane and these two friends finish the bottle between them. Calculate how much Alex drinks.

Answer: _____ ml [3]

39. Jacqueline and Sophia stand facing one another. At exactly the same moment both girls start to turn steadily on the spot.

It takes Jaqueline 3 seconds to make one full turn, whilst Sophia takes 4 seconds to complete one full turn.

How many times will Jaqueline have turned when the girls are next facing each other?

Answer……..turns

38. I think of a number. I multiply my number by 9 and add 5 to the result. The answer is 50. What is my number?

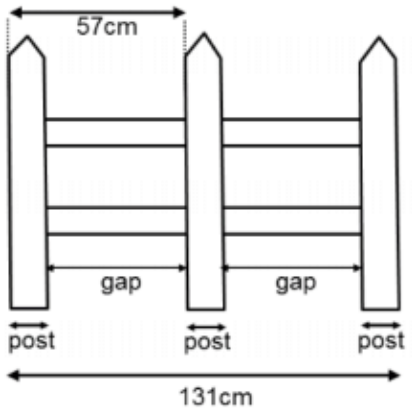
Answer…….

37. Sholto has 40 helium balloons. Some of the balloons are red, some are blue and some are green. There are three times as many green balloons as there are red balloons and there are twice as many blue balloons as there are green balloons.

How many balloons are blue?

Answer…….. Balloons

32. In this fence the posts are all the same width as each other. The gaps are all the same width as each other, too.



How wide is each gap?

Answer…….. cm

20. A theatre has seats arranged in rows of 22. If an audience of 483 fills the rows one by one, leaving no empty seats, how many rows will be full?

Answer…….rows

19. The number of stinging nettle plants in Mr Beefshaw's rose patch doubles each year. In 2016 there are 8 stinging nettle plants. In which year will the number of stinging nettle plants first be more than 1000?

Answer…….

17. The temperature of water in a tank is decreasing at $3°C$ per minute. If the bath starts with a temperature of $48°C$, after how long will the temperature reach $15°C$?

Answer…….minutes

16. Imogen buys

- 4 star stickers at 15p per sticker
- 7 moon stickers at 16p per sticker

If Imogen pays with a £5 note how much change would Imogen get?

Answer £……..

14. Paulina and Simon have baked 5 cakes each to sell at a tea party. Paulina sells $4\frac{3}{4}$ cakes and Simon sells $2\frac{1}{4}$ cakes.

How much more cake does Simon have left than Paulina?

Answer……..

31. Three consecutive **positive** numbers are multiplied together. This means that the second number is 1 more than the first, and the third number is 1 more than the second. For example

$$4\times5\times6 \qquad 8\times9\times10 \qquad 15\times16\times17$$

Circle all statements below that are **always true**.

The answer is divisible by 3

The answer is a multiple of 6

The answer is even

The answer is odd

The answer is a multiple of 5

The answer is divisible by 8

The answer is prime

The answer is a square number