International SoM Contest 2025 Grade Four Solutions

1) **C** Regroup the numbers to simplify.

$59 + 47 - 9 - 17 = 59 - 9 + 47 - 17$
$= 50 + 30$
$= 80$

2) **B** Aaron has 27 books to share among 3 libraries, so each school gets $27 \div 3 = 9$ books.

3) **A** The number 5595 rounded to the closest hundred is 5600. The number 5695 rounded to the closest hundred is 5700. The number 55950 and 56950 are too large. Therefore, Yolana's favourite number is 5595.

4) **C** Regroup the numbers to simplify.

$25 \div 7 \times 14 \div 5 = 25 \div 5 \times 14 \div 7$
$= 5 \times 2$
$= 10$

5) **D** In the tens column, we see that $A + 1 = 7$. This means we are looking for a number that can be added to 1 to make 7, so A must be equal to 6.

6) **B** All of Shia's Transformers are red except 8, so $17 - 8 = 9$ Transformers are red.

7) **A** Start with one half and then move backwards, one half of 1200 is 600, because $1200 \div 2 = 600$. Then, one-quarter of 600 is 150, because $600 \div 4 = 150$.

8) **A** Since Maria is eleven years older than Gabriela, Gabriela is $25 - 11 = 14$ years old. Adrian is half the age of Gabriela, so Adrian is $14 \div 2 = 7$ years old.

9) **C** Before any cuts are made, the log of wood is all one piece. One parallel cut will result in two pieces. Two parallel cuts will result in three pieces. Continue the pattern to notice the number of parallel cuts is always one less than the number of pieces. Therefore, you will have to make $12 - 1 = 11$ parallel cuts to get 12 pieces.

10 **C** Work backwards to calculate my birthday. Anchor date is July 1st.

$1 - 1 + 2 = 2$. Therefore, my birthday is on July 2nd.

11) **B** Find the date 2 weeks and 3 days (or 17 days) before 27-Sept : $27 - 17 = 10$, so today's date is 10-Sept.

12) **C** Five $25 bills is $25 \times 5 = 125$ dollars. There are three times as many $10 bills, which equals $10 \times 15 = 150$ dollars. This results is a total of $125 + 150 = 275$ dollars or $275.

13) **B** On the left, $6 \times 7 = 42$. This can be thought of as nine plus some number equals 42. Since $9 + 33 = 42$, the missing number is 33.

14) **B** Gavin did not paint the lockers before locker number 11, so he did not paint lockers 1 to 10, or 10 lockers. Gavin painted $38 - 10 = 28$ lockers.

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15) **B** If you are traveling directly towards each other, the distance apart decreases by the distance traveled. You and your best friend travel 55,000 + 100,000 = 155,000 km towards each other. You are 255,000 – 155,000 = 100,000 km apart.

16) **A** If the perimeter is 60 m, then sum of the length and width must be 30 m. As the length is twice the width, therefore length is equals 20 m and width is equals 10 m.

17) **B** To square a number, you multiply it by itself. To find the sum of a number and its square, you add the number to its square. Since 14 + 196 = 210, the number is 14.

18) **B** There are 5 letters in LIGHT, with no letters that repeat; the number of arrangements is equal to 5!

$5! = 5 \times 4 \times 3 \times 2 \times 1$

$= 120$

19) **C** An Exploding Toffee is made every 14 minutes and a Scrumpyumlicious Bar is made every 21 minutes. The next time they will be made together will be at a multiple of 14 and 21. The least common multiple of 14 and 21 is 42. That means the treats will be made together again in 42 minutes.

$14 = 2 \times 7$

$21 = 3 \times 7$

$LCM = 2 \times 3 \times 7$

$= 42$

20) **C** To guarantee a red shirt, June could pick all 26 non-red shirts first (8 black, 3 pink, 9 blue, 6 white). After that, the next shirt she picks must be red. Therefore, she needs to pick 27 shirts to be sure she gets at least one red shirt.

21) **C** Claude's total score for three recitals must be $10 \times 3 = 30$.

His total score so far is $9.5 \times 2 = 19$.

He needs $30 - 19 = 11$on his final recital to achive his goal.

22) **B** If 12 chocolate bars cost \$1.44, then one bar will cost $1.44 \div 12 = \$0.12$.

Therefore, 20 chocolate bars will cost $20 \times 0.12 = \$2.40$

23) **A** If 7 frogs can skip on 14 lily pads in 2 hours,

then $7 \times 2 = 14$ frogs can skip $14 \times 2 = 28$ lily pads in 2 hours.

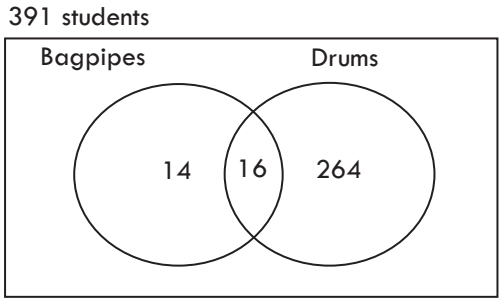
Therefore, 14 frogs can skip $28 \times 3 = 72$ lily pads in $2 \times 3 = 6$ hours.

24) **D** All toys have at least 2 wheels: 23×2 wheels = 46 wheels. There are 68 – 46 = 22 wheels left, which need to go to the toy cars (since toy cars have 4 wheels). There are $22 \div 2 = 11$ "extra" pairs of wheels, which means there are 11 toy cars. Therefore, there are 23 – 11 = 12 toy motorbikes.

25) **C** If Akua has 90 Mancala stones, Amara has 90 + 11 = 101 Mancala stones and Abena has 82 Mancala stones. Thus, the average of their Mancala stones is

$(90 + 101 + 82) \div 3 = 91$.

26) **D** Use a Venn diagram to solve this problem.

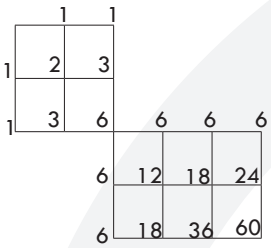


to calculate how many play only the French horn, subtract (14 + 16 + 264) from 391.

391 – (14 + 16 + 264)
= 391 – 294
= 97

27) **B** Count the paths to each intersection going South (down) and East (right). Each intersection is the sum of the two preceding intersections.

Divya's house



Mumbai city center

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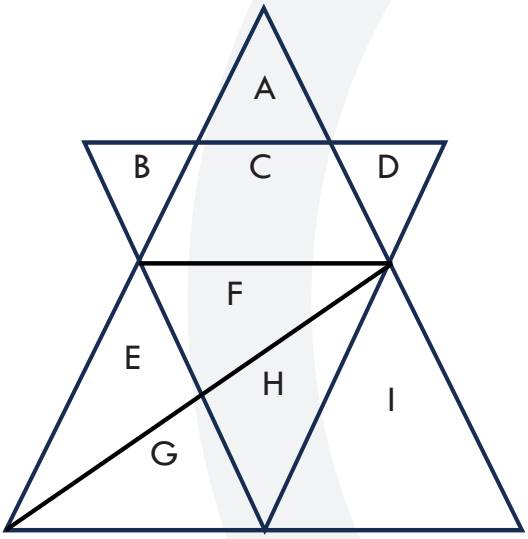
28) **C** Make organized chart. Since Adeline is not the oldest or youngest, she is not 1 or 9. Adeline and Daria are four years apart, so Daria cannot be 5. Elena is four years older than Constance, so Elena is not 1 or 3, and Constance is not 7 or 9. Only Daria or Elena could be 9 and Daria is older than Elena so daria is 9. This means Adeline is 5, Elena is 7, Constance is 3, and Bianca is 1.

	1	3	5	7	9
Adeline	X	X	✓	X	X
Bianca	✓	X	X	X	X
Constance	X	✓	X	X	X
Daria	X	X	X	X	✓
Elena	X	X	X	✓	X

Neither: 7

29) **B** The volume of a rectangular solid is the product of length, width and height. It is given that one side is 25 cm, so the product of the remaining sides would be 400 ÷ 25 = 16. The factors of 16 are {1, 2, 4, 8, 16} and only B) 4 would be possible value of x.

30) **B** Label each region of the diagram and make a chart to help you count.



# of letters	Letter names	# of triangles
1	A, B, D, E, F, G, H, I	8
2	AC, EF, EG, FH, GH	5
3	GHI	1
4	ACEF	1
5	BCDFH	1
7	ACEFGHI	1
Total		17