

Additional Questions for the Speed Maths Camp – A Sample

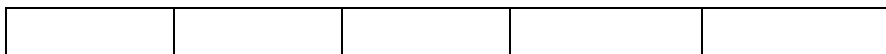
1. Study the pattern below.

Line	Numbers	Sum
1	1 + 1	2
2	1 + 2 + 2 + 1	6
3	1 + 2 + 3 + 3 + 2 + 1	12
4	1 + 2 + 3 + 4 + 4 + 3 + 2 + 1	20
5	1 + 2 + 3 + 4 + 5 + 5 + 4 + 3 + 2 + 1	30
6	?	?

- a) What is the sum of numbers in the 6th line?
- b) What is the sum of numbers in the 20th line?
2. Find the sum of $1 + 2 + 3 + \dots + 25 + 26 + 27$.

- (1) 273
(2) 278
(3) 373
(4) 378

3. The figure below is made up of 5 rectangles. How many rectangles are there altogether in the figure?
(For such questions, we teach the students the EXACT method to calculate the number of ways, so that they do not use guess-work or trial-and-error methods)

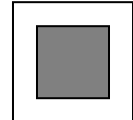


4. Tap A can fill up a tank in 3 minutes while Tap B can fill up the same tank in 4 minutes. If both taps are turned on at the same time, how long will it take to fill up the tank?

(For such questions, we teach the students methods that do not use fractions, as fractions are more difficult to handle than whole numbers)

5. It took Adam and Joey 4 hours to paint a room. Adam could paint the room on his own in 7 hours. How long would it take Joey to paint the room on his own?

6. Rosa can sew a skirt in 5 hours. Mary can sew a similar skirt in 4 hours. If they work together, how many hours would they need to sew one skirt? (Leave your answer as a mixed number)
7. An 18 cm x 18 cm square is placed over a larger 19 cm x 19 cm square. Find the area of the larger square that is not covered by the small square.
(Our students should be able to answer such questions within 5 seconds.)



8. If you can only move upwards and to the right, how many different ways are there to move from A to B?
(For such questions, we teach the students the EXACT method to calculate the number of ways, so that they do not use guess-work or trial-and-error methods)

