GJMAT
Global Junior Math Aptitude Test

GJMO
Global Junior Math Online Competition



Grade 4

SAMPLE QUESTIONS

Global Olympiads Academy
Perform on World Stage

LIVEWORKSHEETS

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About the Sample Questions

This "**Sample Questions**" test is not to check the rote learning of concepts and application of simple procedures. This test would require the student to first understand the question properly and then they need to think and try out different possibilities to solve the question. The method is not important but the mindset to take on the challenge is. This test might cover much more than what the school syllabus/curriculum gives an exposure to. Please note that some problems would require more than one topic/concept to be applied as Math is not about just calculations but it is about well reasoned application of concepts and operations in a systematic and logical way. The focus here is on understanding, applying and problem solving and relating Math with the world around us and how we use it daily for small decisions.

The test has been designed keeping in mind the need of:

- Concepts: Depth of Concept Understanding
- Application: Ability to apply the concepts to solve Math or Logical problems
- Logical, Analytical and Critical Thinking Skills
- Problem Solving Mindset – Ownership, Rigour and Perseverance
- Problem Solving skills – Systematic, Making a smaller problem to understand patterns
- Taking up the challenge of unfamiliar and non-routine Qs.
- Applying Common Sense and Heuristics
- Understand Daily Life Situations in form of word problems where Math is applied
- Understand Quantitive relationships
- Visualize the situation and connect it with Mathematical procedures.

Ideal Duration: 90 Minutes (However, students should try to solve the questions even if it takes longer. You should try to solve all the questions even if it takes more time.)

Instructions

1. Students should give the test in one sitting so make sure they have 90 minutes once they start
2. Parents should not help or prompt however since these kids are small, parents can help them explain the questions to them however the temptation should be curbed to give out any hints on how to think or solve the problem.
3. Calculators should **NOT** be used.
4. Students can keep a rough notebook/blank sheets for doing their working.
5. One should refer to the answer key only at the end of the test.
6. Solutions will also be made available for these sample questions later on the website.

These sample questions are just indicative of the kind of questions you may expect in GJMAT & GJMOC, however, the problems might be easier or even more complex.



All the Best, Enjoy the Test



LIVEWORKSHEETS

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Q1. Ram has 14 marbles less than Shyam and altogether they have 50 marbles.

How many marbles should Ram give to Shyam so that Shyam has 4 times as many marbles as Ram has?



ANSWER

Q2. There are 10 different counting numbers and 3 of those are Odd numbers.

Find the least possible sum of these numbers.

ANSWER

Q3. Two different 2-digits numbers are added.

What could be the difference in their maximum and minimum possible totals?

ANSWER

Q4. Parul selected a 2-digit number A which was more than 50 and added another 1-digit no. B to it. Their sum C had the same ten's place digit as A.

What could be the minimum difference of A and B?

ANSWER

Q5. Alice had $10 more than Beth and Beth had $4 more than Cheryl. Alice gives some money to Beth and Cheryl (could be different amounts to each). Now the three of them have the same amount.

How much total money in $ did Alice give to them altogether?



ANSWER

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Q6. Dhawal is 4 times the age of his son at present. Ten years back the sum their ages of was 40.

After how many years from now Dhawal will be double the age of his son?



ANSWER

Q7. The seats in a class are arranged in rectangular form with rows and column. Anita can see 3 students to her right and 4 students to her left in the same row. Anita is in the 5th row from front and she has 2 students sitting behind her in the same column.

If all the seats are full then how many students including Anita are there in the class?



ANSWER

Q8. Jitendra started from home at 0715 hours for school by bicycle and he reached school at 0755 hrs. On his way back from school in the afternoon, exactly at midway his bicycle's tyre punctured. He decided to walk it down for the remaining journey back home.

If he cycles 3 times as fast as he walks, how much total time in minutes did he take to reach from school to home? (Assume that he cycles at same speed all the time).



ANSWER

Q9. A large square is divided into 9 equal squares.

If the area of each small square is 16 square units, then how many units is the perimeter of the original large square?

ANSWER

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ANSWER

Q10. How many 3-digit even numbers can be formed using the digits 5,0,3,4? The digits may be repeated.

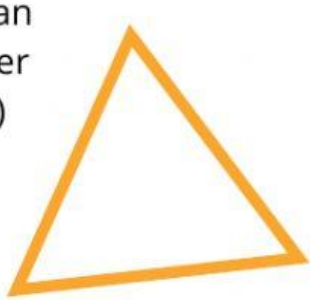
Q11. Tejas has 4 T-shirts, 3 caps, 5 shirts and 2 hats. He wears the cap whenever he wears a t-shirt and he wears a hat whenever he wears a shirt.

Given that none of them are alike, how many different combinations can Tejas chose from to wear when he is going out?



ANSWER

Q12. How many different Equilateral triangles can you form with each having a maximum perimeter of upto 16 units and Integer (counting numbers) units sides?



ANSWER

Q13. Form two of 3-digit numbers using 0,1,2,3,4,5 without repeating any digits and using all of them once.

What will be the minimum difference of those numbers?

ANSWER

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Q14. A book has 250 pages.

How many digits are used in the printing of its page numbers?



ANSWER

Q15. Alisha Used $4 to buy a comic book. She used half of the remaining money to buy a magazine. Lastly, she used $1 more than half of the remaining money to buy the pen. She was left with $5.

How much money had Alisha at first?



ANSWER

Q16. Five teams A, B, C, D & E are playing a tournament where at a league stage every team has to play every other team once. Sometime mid-way of the league, so far A, B, C and E have 3, 2, 4 and 1 games respectively.

How many games has Team D played?



ANSWER

Q17. In a month of August some year there are 5 Sundays and 4 Tuesdays and 2nd Monday falls on an Odd numbered date, what day is 1st of July in that year?



ANSWER

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Q18. At most how many regions inside a circle can you make by drawing 4 straight lines across it?



ANSWER

Q19. 4 players play a chess tournament. At league stage each player is supposed to play against every other player once. The outcomes of a match can be a win-loss or a draw for both players.

If A and B won 2 games each & C and D both won none at the end of the league stage, then how many games were drawn?



ANSWER

Q20. Tom wanted to cut a 12 m log into 6 equal pieces so he drew red lines from where he wanted to have it cut by the carpenter. Jerry wanted to cut the log into 4 equal pieces so he also drew blue lines where he wanted the carpenter to cut it and maybe some line(s) overlapping with the red ones. Eventually the carpenter came and cut the wood along the all the different lines.



If the carpenter takes 5 minutes to make one cut along one line, how long did the carpenter take to finish the job?

ANSWER

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Q21. The sum of two counting (natural) numbers is 13.

What is the difference between their maximum and minimum products?

ANSWER

Q22. Some counting (natural) numbers add up to 10.

Find their maximum possible product.

ANSWER

Q23. Mohan runs 50 meters in 25 seconds.

If he runs around a circular park and completes 5 rounds in 40 minutes, how long in meters in the boundary of the park?



ANSWER

Q24. There are 10 Red balls, 7 green balls and 5 Yellow balls.

If you are blind folded and asked to pick 2 each of red, green and yellow balls, then at least how many balls will you pick up to ensure this?



ANSWER

Q25. The area of a rectangle is 40 and both its adjacent sides are integers larger than 1.

Find the difference between the largest and smallest possible perimeters.

ANSWER

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Rough Worksheet

You can check the answer key document for the correct answers.

--- End of Sample Questions ---

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