GLOBAL MATH OLYMPIAD

Past Papers Archive

Compiled from GMO past editions — Seed through Scholar Level

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MIND CARVER

GLOBAL MATH OLYMPIAD — PAST PAPERS ARCHIVE

Explorer Level

Grades 3–4

Past Paper — For Reference & Practice

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1 Basic problems (1 Each - 15 Marks)

1. What is the missing number in the equation: $8\times \quad = 64$

   (a) 6
   (b) 7
   (c) 8
   (d) 9

2. If you have 3 bags of cookies and each bag has 4 cookies, how many cookies do you have in total?

   (a) 10
   (b) 7
   (c) 12
   (d) 15

3. What is 23 + 45?

   (a) 58
   (b) 68
   (c) 78
   (d) 88

4. What is the perimeter of a square with each side measuring 5 cm?

   (a) 10 cm
   (b) 15 cm
   (c) 20 cm
   (d) 25 cm

5. How many sides does a hexagon have?

   (a) 4
   (b) 6
   (c) 8
   (d) 7

6. What happens when you fold a square in half along the middle?

   (a) It turns into a circle
   (b) It becomes two equal rectangles
   (c) It disappears
   (d) It becomes a triangle

7. Add: $\frac{1}{4} + \frac{1}{4}$

   (a) $\frac{1}{8}$
   (b) $\frac{1}{4}$
   (c) $\frac{2}{4}$
   (d) $\frac{4}{4}$

8. What fraction is equal to one whole?

   (a) $\frac{1}{2}$
   (b) $\frac{1}{3}$
   (c) $\frac{2}{4}$
   (d) $\frac{2}{2}$

9. A baker cuts a cake into 8 slices. He sells $\frac{5}{8}$ of the cake. How many slices are left?

   (a) 2
   (b) 3
   (c) 4
   (d) 5

10. How many minutes are in an hour?

    (a) 30
    (b) 60
    (c) 45
    (d) 90

11. You have $ 15. You spend $ 7 on a book and $ 3 on a snack. How much money do you have left?

    (a) 3 $
    (b) 4 $
    (c) 5 $
    (d) 6 $

12. If the short hand of clock is between 4 and 5, and the long hand is at 6, what is the time?

    (a) 5:30
    (b) 5:00
    (c) 4:00
    (d) 4:30

13. In a number pattern, the rule is "Add 2" starting from 5. What are the first four numbers in the pattern?

    (a) 5, 6, 7, 8
    (b) 5, 7, 9, 11
    (c) 5, 8, 11, 14
    (d) 5, 10, 15, 20

14. Detective Jake found a number that is a multiple of both 3 and 4. Which number could it be?

    (a) 9 (b) 8 (c) 12 (d) 16

15. A secret code uses odd numbers between 10 and 20. Which of these numbers could be in the code?

    (a) 15
    (b) 12
    (c) 18
    (d) 20

2 Moderate problems (3 each - 45 Marks)

16. Which number is 3 more than 4 times 6?

    (a) 21
    (b) 30
    (c) 23
    (d) 27

17. A baker bakes 48 cookies and packs them into boxes of 6. How many boxes are needed?

    (a) 8 (b) 7 (c) 5 (d) 9

18. Add: 256 + 474 + 1

    (a) 733
    (b) 731
    (c) 732
    (d) 680

19. A rope is 2.5 meters long. How many centimeters is this?

    (a) 25 cm
    (b) 2500 cm
    (c) 250 cm
    (d) 2.5 cm

20. How many corners does a cube have?

(a) 6 (b) 8 (c) 4 (d) 12

21. Which unit is best to measure the length of a classroom blackboard?

(a) Millimeters
(b) Centimeters
(c) meters
(d) kilometers

22. A pizza is divided into 6 equal slices. If you eat 3 slices, what fraction of the pizza is left?

(a) $\frac{1}{3}$
(b) $\frac{2}{3}$
(c) $\frac{1}{2}$
(d) $\frac{6}{3}$

23. Which fraction is bigger: $\frac{1}{2}$ or $\frac{1}{4}$

(a) $\frac{1}{2}$
(b) $\frac{1}{4}$
(c) Both are same
(d) cannot compare

24. Add: $\frac{1}{3} + \frac{1}{6}$

(a) $\frac{2}{6}$
(b) $\frac{1}{2}$
(c) $\frac{5}{6}$
(d) $\frac{4}{6}$

25. A movie starts at 7:30 PM and ends at 9:30 PM. How long is the movie?

(a) 2 hours
(b) 1 hour 30 minutes
(c) 3 hours
(d) 1 hour

26. What is the time 45 minutes after 1:15?

(a) 2:00
(b) 1:45
(c) 1:30
(d) 2:15

27. If the clock shows 8:45, what is another way to say this time?

(a) Quarter past 8
(b) Quarter to 8
(c) Quarter past 9
(d) Quarter to 9

28. Each letter in the word "MATH" is assigned a number based on its position in the alphabet (A=1, B=2, C=3, etc.). What is the sum of M, A, T, and H?

(a) 45 (b) 42 (c) 39 (d) 46

29. I'm a number less than 20. I'm odd. I'm divisible by 3. The sum of my digits is 9. What number am I?

(a) 12 (b) 15 (c) 18 (d) 27

30. The code is made by adding 3 to each letter's position in the alphabet. A becomes D, B becomes E. What does CAT become?

(a) FDW
(b) GDX
(c) HDY
(d) IEZ

3 Advanced problems (4 Each - 40 Marks)

31. A farmer has 120 eggs. He sells 45 eggs in the morning and 35 eggs in the afternoon. How many eggs does he have left?

    (a) 30 (b) 40 (c) 50 (d) 60

32. A school has 240 students. If each classroom can hold 30 students, how many classrooms are needed?

    (a) 8 (b) 7 (c) 6 (d) 5

33. A rectangular garden has a length of 12 meters and a width of 8 meters. What is its perimeter?

    (a) 40 meters
    (b) 20 meters
    (c) 60 meters
    (d) 16 meters

34. Emma is making a lollipop using a round candy and a straight stick. The round candy has a diameter of 6 cm and the stick is 10 cm long. What is the total length of lollipop.

    (a) 6 cm (b) 12 cm (c) 15 cm (d) 16 cm

35. A pizza is cut into 16 equal pieces. If you eat $\frac{3}{8}$ of pizza, how many slices did you eat?

    (a) 4 (b) 5 (c) 6 (d) 7

36. Which fraction is larger: $\frac{5}{6}$ or $\frac{7}{8}$?

    (a) $\frac{5}{6}$
    (b) $\frac{7}{8}$
    (c) they are same
    (d) cannot be compared

37. You are given \$100 to buy supplies for a space adventure. You buy a space helmet for \$35, a backpack for \$28, and snacks for \$15. How much money do you have left?

    (a) \$22 (b) \$18 (c) \$20 (d) \$25

38. If the time is 11:45, what was the time 2 hours and 30 minutes ago?

    (a) 9:30 (b) 9:20 (c) 9:15 (d) 9:45

39. What two numbers add up to 15 and multiply to 54?

    (a) 3 and 12
    (b) 9 and 6
    (c) 7 and 3
    (d) 11 and 4

40. A number is divided by 3 and then increased by 5 to get 14. What is the number?

    (a) 25
    (b) 27
    (c) 30
    (d) 20