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2025-2026 Math League Preliminary Round

(Grade 4)

(Unofficial version, for reference only)

1. The average of all the prime numbers between 20 and 30 is

   A) 23 B) 24 C) 25 D) 26

2. Maiz sees 2 rainbows each day for 4 days. On the fifth day, she sees triple that daily number. How many rainbows does she see in total?

   A) 14 B) 16 C) 18 D) 20

3. $2000 \times 20 \times 5 =$?

   A) 20×25 B) 200×500

   C) 1000×200 D) 2000×25

4. Sally made 12 pies for her party, and 19 guests came. If each person there, including Sally, ate half a pie, how many pies were left over?



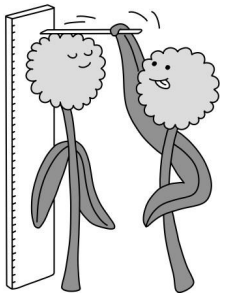
   A) 2 B) 4

   C) 6 D) 8

5. How many 2-digit whole numbers do ***not*** contain an odd digit?

   A) 19 B) 20 C) 24 D) 25

6. My plants grow the same amount each day, growing twice as fast in the 1st half of each day as in the 2nd half. If a plant grows 36 cm in 4 days, it grows ? cm in the last 12 hours of each day.



   A) 3 B) 4

   C) 6 D) 9

7. If 52 cards are distributed among 5 players and everyone gets at least 10 cards, the greatest number of players who will receive more than 10 cards is

   A) 1 B) 2 C) 3 D) 4

8. What is the tens digit of the product $1 \times 2 \times 3 \times 4 \times 5 \times 6$?

   A) 0 B) 1 C) 2 D) 6

9. Sorkin the Sorcerer can buy 1 charm and 3 crystals for \$20 and 3 charms and 8 crystals for \$54. How much does one charm cost?



   A) \$2 B) \$4

   C) \$6 D) \$8

10. How many factors of 24 are also factors of 40?

    A) 2 B) 4 C) 6 D) 8

11. How many whole numbers less than 100 are both the square of a number and the cube of a *different* number?

    A) 1 B) 2 C) 3 D) 4

12. Sam's watch is 5 minutes fast, and Joe's watch is 7 minutes slow. If Sam's watch shows 3:00 PM, what time does Joe's watch show?

    A) 2:48 PM B) 2:50 PM C) 2:53 PM D) 3:02 PM

13. How many numbers between 10 and 100 increase by 18 when their digits are reversed?

    A) 7 B) 8 C) 9 D) 10

14. I started adding all the whole numbers together in order beginning at 0 until my sum was the square of a whole number greater than 1. What was the greatest whole number I added to get my sum?

    A) 5 B) 6 C) 7 D) 8

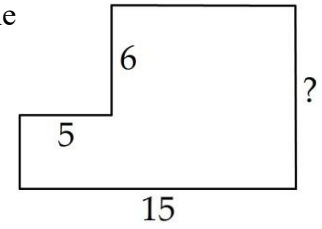
15. Riley wrote the same number of 2s and 8s on the board. The sum of all the numbers was 40. Riley then erased all the 8s and replaced them with 6s. What was the new sum of all the numbers?

    A) 28 B) 30 C) 32 D) 38

16. How many of the 14 different numbers formed by multiplying two odd digits together have a product with exactly one even digit?

A) 5 B) 7 C) 8 D) 10

17. The figure shown has right angles wherever two sides intersect. If the figure's area is 120, what is the length of the side with a "?" on it?

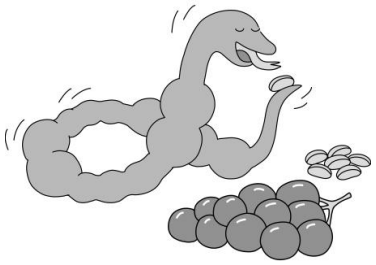


A) 8 B) 9

C) 10 D) 12

18. The largest number of obtuse angles that a triangle can have is

A) 0 B) 1 C) 2 D) 3



19. Each day last week Joey ate 2 grapes then 3 peas. One day, before his peas but after his grapes, he had eaten the same number of grapes as peas. He had eaten ? grapes.

A) 5 B) 6 C) 9 D) 12



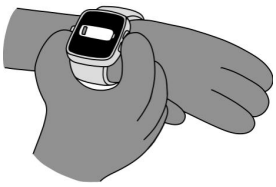
20. Dana's dune buggy races 60 km in 40 minutes. If it goes 15 km/hr. faster, how many km can it race in 40 minutes?

A) 70 B) 72

C) 75 D) 78

21. The sum of all whole numbers between 0 and 20 that are not divisible by 2 or 5 is

A) 80 B) 92 C) 98 D) 130



22. I checked my watch every 15 minutes, starting at 8:37 AM and ending at 2:22 PM. How many times did I check my watch?

A) 22 B) 23 C) 24 D) 25

23. How many positive integers less than 100 can be expressed as the product of three different prime numbers?

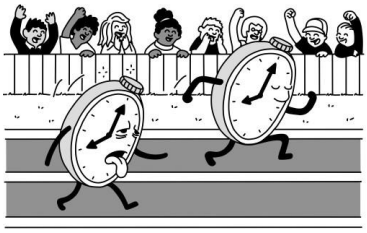
A) 5 B) 6 C) 7 D) 8

24. The ratio between two integers is prime. Their sum **cannot** be

A) 8 B) 10 C) 12 D) 14

25. The product of four distinct primes has ? positive divisors.

A) 4 B) 5 C) 6 D) 16



26. If a clock loses 5 seconds every hour, how many seconds will it lose in one week?

A) 360 B) 720 C) 840 D) 1200

27. The difference between a prime number and one of its factors cannot be

A) 0 B) 1 C) 2 D) 3

28. Which of the following sums is a multiple of 6?

A) 26 + 36 B) 26 + 46 C) 26 + 56 D) 26 + 66

29. If the area of a non-square rectangle that has integer side-lengths is a perfect square, the sum of its length and width could be

A) 11 B) 12 C) 13 D) 14

30. Lu sees a constellation with 8 stars in it, and no 3 of them appear to be collinear. If she mentally draws lines connecting each of the 8 stars to each of the other stars, how many lines must she draw?



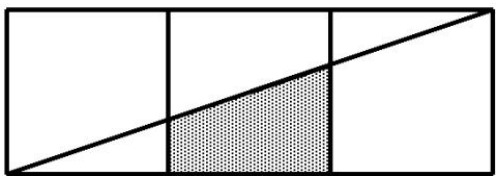
A) 15 B) 16 C) 28 D) 56

31. How many different prime factors does 2025^{26} have?

A) 2 B) 6 C) 52 D) 156

32. Positive integers a, b, and c are each less than 5, but are not necessarily different. For at most how many different triples (a, b, c) will the product abc be odd?

33. A rectangle of area 300 is divided into 3 congruent squares, and a diagonal of the rectangle is drawn, as shown. What is the shaded region's area?



34. A superprime is a positive integer that is the product of exactly two different primes. What is the least possible sum of two superprimes that differ by 1?



35. What is the length of the longest side of an isosceles triangle with integral side-lengths and perimeter 5?

Answers										
Question	1	2	3	4	5	6	7	8	9	10
Answers	**D**	**A**	**C**	**A**	**B**	**A**	**B**	**C**	**A**	**B**
Question	11	12	13	14	15	16	17	18	19	20
Answers	**A**	**A**	**A**	**D**	**C**	**B**	**C**	**B**	**B**	**A**
Question	21	22	23	24	25	26	27	28	29	30
Answers	**A**	**C**	**A**	**B**	**D**	**C**	**D**	**B**	**C**	**C**
Question	31	32	33	34	35					
Answers	**A**	**8**	**50**	**29**	**2**					