1. How many words are in this question?

2. Compute $(1 + 5 \times 6) - 11$.

3. The ice cream man stops by every 5 days. What is the maximum number of times the ice cream man could have stopped by in any 12 day period?

4. Let S be the number of sides a square has, and let P be the number of vertices a pentagon has. What is $S + P$?

5. What is $\frac{1}{2}$ of $\frac{1}{4}$ of $\frac{1}{8}$ of 64?

6. Let A be the sum of the first five positive even numbers, and let B be the sum of the first five positive odd numbers. What is $A - B$?

7. When I roll a fair, six-sided, die, what is the probability that I will get a prime number?

8. I am five inches shorter than Arthur but six inches taller than Alex. Arthur is taller than Alex by how many inches?

9. What is the mean of the median and mode of the set $\{17, 2, 5, 3, 6, 3, 7\}$?

10. Evaluate $\frac{2468}{1234}$.

11. Compute $1 + 4 + 7 + \cdots + 52$.

12. How many factors does 36 have?

13. If the decimal 0.2475 can be expressed as a fraction $\frac{a}{b}$ where a and b share no factors, what is $3a + 4b$?

14. Evaluate $\frac{1 + 2 \cdot 3^3}{5}$.

15. Arthur has no friends, so he tries to make some. If it takes him 3 minutes to make a friend, what is the largest number of friends that he can make in a week?

16. Let $x_0 = 3$ and $x_n = 1 + \dfrac{1}{x_{n-1}}$ for all positive integers n. Compute x_4.

17. A cement recipe calls for 70 cups of crushed rock and 93 cups of water. If I make only a quarter of the recipe, how many cups of crushed rock must I buy, provided that I can only buy crushed rock in whole cup amounts?

18. If AJ has 9 fish, while Soonho only has 3, how many should fish should AJ give to Soonho so that AJ has exactly double the number of fish that Soonho has?

19. A triangle has side lengths 3, 4, and 5. What is its area?

20. A square of side length 2 shares a side with a regular pentagon and another side with an equilateral triangle. What is the perimeter of the resulting figure?

21. An ant is on vertex A of a 12-sided figure $ABC \ldots L$ with congruent sides and angles. Each second, it decides to move to either vertex next to the one it is on, with equal probability. What is the probability that after 9001 seconds, the ant will be back on vertex A?

22. Compute the greatest common divisor of 1123 and 2234.

23. Define an ordered pair of natural numbers (m, n) to be "somewhat similar" if you can rearrange the digits of m to get n. For example, 12 and 21 form such a pair. How many ordered pairs of two-digit "somewhat similar" numbers are there?

24. On the first day of MoneyFest, I get 1 dollar. On the second day, I get $1 + 2$ dollars. On the third day, I get $1 + 2 + 3$ dollars, and so on. How many dollars do I have by the end of the sixth day of MoneyFest?

25. How many distinct right triangles have integer lengths for legs and an area of 24?

26. A business owner wishes to hold a sale advertising 25% off. If he does not want the price to actually change, what price should he mark a 30 dollar item before announcing the sale?

27. Define the E of a polyhedron to be the sum of the lengths of all its edges. 4 cuts are made to each corner of a tetrahedron of edge length 4, resulting in a truncated tetrahedron and 4 tetrahedra of side length 1. What is the E of the resulting truncated tetrahedron?

28. Container A is a cone, and Container B is a cylinder. They have the same radius and height. How many times more water can Container B hold than Container A?

29. Some of the problem writers made the following statements:

    - Kelvin the Frog: Alex ate the cake.
    - The Great Sabeenee: Steven is not lying.
    - Alex the Kat: I did not eat the cake.
    - Steven the Alpaca: AJ did not eat the cake.
    - AJ the Dennis: Kelvin ate the cake.

    If exactly one of these people is lying, who ate the cake?

30. A regular triangle and a regular hexagon have equal perimeters. What is the ratio of the area of the triangle to the area of the hexagon?

31. The numbers from 1 to n are arranged evenly around a circle in order. The numbers 17 and 38 are opposite to each other. Compute n.

32. Find the average of the numbers in the set $\{-2013, -2012, \ldots, 2012, 2013\}$.

33. Balabob sells kebabs only in groups of 3, 5, or 7. What is the largest number of kebabs that cannot be bought from Balabob?

34. $\triangle ABC$ is a right triangle with a right angle at C. Extend line AC to D such that $\angle ABD$ is a right angle. If $AC = 5$ and $BC = 12$, find the value of CD.

35. What is the largest 3 digit number divisible by 5 and 11, but not 3?

36. A man is racing against a dog. The man runs constantly at 10 mph and the dog runs at 5 mph. However, starting at 7:00 pm, every 30 minutes, a gust of wind pushes both the dog and the man back 0.5 miles. If dog starts running in a straight line at 4:00 pm, and the man starts running in a straight line from the same position at 6:00 pm, at what time will the man catch up to the dog?

37. I am pushing a cart along a straight path. The front wheel of my cart has a radius of 2 meters, and rolls along the path without slipping. The front wheel also has a dot painted on the outside edge, so that at the beginning of the path, it is at the bottom of the wheel. After walking along the path, I notice that the dot is now at the top of the wheel. If I travelled more than 35 meters, but less than 50 meters, how far did I travel in meters? Express your answer in terms of π.

38. There are 5 Jims, 6 Janes, and 7 Tinas in one class. If the first letter of a random student's name is J, what is the probability the student's name is Jim?

39. There are 2013 kangaroos. Some adults have pouches, some do not. Each pouch contains exactly one baby kangaroo. There are 9 times as many adult kangaroos without pouches as there are baby kangaroos. How many kangaroos do not have a pouch?

40. An integer n has the property that $|\sqrt{n} - 7| < 1$. How many possible values of n are there?

41. What is the 81st digit to the right of the decimal point in the decimal representation of $\dfrac{3}{14}$?

42. A rectangle with integer side lengths has an area of 100. What is the difference between the largest and smallest possible perimeters?

43. A rectangle with side lengths of 6 and 8 is centered at the origin of a coordinate plane. This rectangle slowly spins around the origin, creating a circle. Compute the area of this circle.

44. The length of the longest diagonal in a rectangular prism is 13. If all side lengths are integers, find the volume of the prism.

45. Johnny borrows x dollars from his parents. Using this money, he considers buying y mugs that are \$10 each. However, he realizes he is \$15 short and puts back half the mugs, buying the other half. Later he gives back his parents the remaining \$25. What is $x + y$?

46. The numbers from 1 to 9 are arranged in a 3×3 grid. The sum of each column, row, and diagonal is calculated. These eight sums add up to 124. What is the sum of the diagonals?

47. Victor, Tony, and Sam each have a turtle. Victor's turtle can run twice as fast as Sam's, and Sam's can run twice as fast as Tony's. The turtles run a 12 meter relay race such that each turtle runs the same distance. If it takes the turtles 14 days to finish, how many meters can Tony's turtle run in 1 day?

48. Palindromes are numbers that are written the same way forward and backward, such as 12321. Picky Peter only likes 3 digit palindromes that are divisible by 11. How many such numbers are there?

49. Arthur, Wang, James, and Dennis had a race. Arthur didn't finish first or last, and James finished before Dennis. In how many different ways could the race have ended, provided that there were no ties?

50. How many subsets of the set $\{1, 2, 3, 4, 5, 6, 7, 8, 9, 10\}$ have an odd number of elements?