1. How many words are in this question?

2. Find $1 + 4 + 2 + 8 + 16 + 32$

3. Find the cost of 5 pencils in cents, if each pencil costs 25 cents.

4. How many edges does a cube have?

5. Compute and simplify $\dfrac{1}{2} + \dfrac{1}{3} + \dfrac{1}{4} + \dfrac{1}{5}$ as a fraction in lowest terms.

6. 25% of a number is 12. What is 37.5% of the same number?

7. How many 1×1 squares do you need to completely fill both a 3×7 rectangle and a 2×11 rectangle without overlaps?

8. At Steven's Stationery Store, a pencil costs 30 cents, and an eraser costs 111 cents. How much would it cost to buy 5 pencils and 3 erasers, in cents?

9. Justin the Penguin is catching fish. If he catches an average of 2 fish every hour for the first 3 hours, and catches an average of 1 fish every hour for the last 2 hours, how many fish will he have caught after 5 hours?

10. Sung the Black Adder can swallow either 2 or 3 mice at a time. What is the least number of gulps it will take him to eat 17 mice?

11. 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?

12. How many prime numbers lie between 40 and 50 exclusively?

13. Jay Pee wants a new haircut. He can keep his hair straight or make it curly. He can also keep his hair color black or dye it either red, blonde, or blue. Additionally, he has the choice of keeping his hair length short or long. How many choices does Jay Pee have for his haircut?

14. If 3 slaps are equal to 4 sleps, 8 sleps are equal to 5 slips, and 9 slips are equal to 13 slops, how many slops are equal to 54 slaps?

15. What is the largest number of points at which two circles of different radii can intersect?

16. How many solutions are there to the equation $|8x + 1| = 17$? Note that $|a|$ denotes the distance from 0 to a on the number line.

17. Amy has a lot of pieces of candy. She can arrange them in a square, or she can arrange them in 4 or 5 rows of equal length without leftovers. What is the smallest positive number of pieces she can have?

18. A crowd is chanting "$B, C, A, B, C, A, B, C, A, \ldots$" over and over again. What is the 2013th letter they will say?

19. Let $a_n = (-1)^n$. In other words, $a_0 = 1, a_1 = -1, a_2 = 1, \cdots$ Compute $a_0 + a_1 + a_2 + \cdots + a_{2013}$.

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

21. A circle is inscribed in a square with side length 2. What is the area of the region inside the square but outside the circle?

22. When rolling 2 fair standard dice at the same time, what is the probability of rolling a sum of a composite number?

23. 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?

24. The consecutive integers from -2013 to n sum to 6045. Compute n.

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

26. There are 48 jellybeans in a jar. Josephine ate $\frac{1}{4}$ of the jellybeans, she spilled $\frac{2}{3}$ of the remaining jellybeans, then gave the rest to Jared. How many will Jared get to eat?

27. Triangles ABC and DEF are similar. If $AB = 3, BC = 4$, and $DE = 5$, then what is EF?

28. A sheet of paper measures 3 feet by 5 feet. What is the maximum number of 4 inch by 6 inch cards that can be placed on this sheet of paper without overlapping or cutting the cards?

29. The product of three primes is 374. The sum of these primes is 30. What is the difference between the largest and the smallest of these primes?

30. What is the largest number under 100 that is divisible by at least 3 distinct primes?

31. A jar contains \$4.80 in quarters, dimes, and nickels. How many coins are in the jar, if there is the same number of each coin?

32. Write 0.201320132013... as a fraction in lowest terms.

33. A video camera can hold up to 1 hour of footage. What is the minimum number of such cameras necessary to record a $6\frac{1}{2}$ hour party if each camera must record n minutes with n being a positive integer?

34. When 2013 is removed from a collection of 2013 numbers, the average of the remaining numbers is 2013. What is the average of the original 2013 numbers?

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

36. In Circle O, chord $\overline{AB}$ is bisected by chord $\overline{CD}$ at E. If $CD = 10$ and $DE = 2$, compute the length of AB.

37. What is the least positive integer n such that $n \cdot 8!$ is a perfect square? Note that

$$n! = n \cdot (n-1) \cdots 2 \cdot 1.$$

38. Circles A and B are externally tangent with radii a, b, respectively. A line tangent to both circles hits Circle A at M and Circle B at N. If $MN = \sqrt{17}$, Compute ab.

39. Kelvin has pet katz and Alex has pet frogs. Kelvin's pet katz triple in number every year, and Alex's pet frogs double in number every year. If Kelvin currently has 80 katz and Alex has 405 pet frogs, in how many years will Kelvin have the same number of katz as Alex has frogs?

40. A $10 \times 10 \times 10$ cube is painted red and then cut into 1000 $1 \times 1 \times 1$ cubes. How many of these smaller cubes are painted on exactly 2 faces?

41. Beginning from 1, the pages of a book are written in sequential order. If exactly 2013 digits are written, how many pages are in the book?

42. Because of genetic mutations, 1 gosling is born out of every 102 duck eggs. Out of these goslings, 1 out of 3 is thought to be an ugly duckling. How many ugly ducklings are there in a set of 10404 duck eggs?

43. 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 $x + y$?

44. The exterior angles of a regular polygon measure 5 degrees each. How many sides does the polygon have?

45. Numbers are placed on each of the 8 corners of a cube. On each face, Kelvin the Frog writes the sum of the numbers on the 4 corners of said face. The sum of the 6 numbers on the faces is 2013. Compute the sum of the 8 numbers on the corners.

46. Arthur can sow a field in 3 hours. James can sow the same field in 5 hours. How fast, in hours, can Kevin sow the field by himself if, when all work together at their respective rates, they finish in 54 minutes?

47. A triangular number T_n is a number in the form $1 + 2 + 3 + \cdots + n$ for some positive integer n. The first few triangular numbers are $1, 3, 6, 10$, and 15. Compute $\sqrt{T_{2012} + T_{2013}}$.

48. 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?

49. Box A contains 5 red balls and 7 green balls. Box B contains 3 red balls and 2 green balls. A box is chosen at random, and one ball removed at random from this box. Given that the ball removed was green, what is the probability that it came from box A?

50. In a box with red, blue, green, and orange marbles, all but 15 of the marbles are red, all but 20 of the marbles are blue, all but 25 of the marbles are green, and all but 27 of the marbles are orange. How many red marbles are in the box?