1) Find the number of square centimeters in the area of a triangle with a base of 92 centimeters and a height of 68 centimeters.

2) The arithmetic mean of nine consecutive positive numbers is 99. What is the sum of the largest and smallest values in this set of numbers?

3) What is the geometric mean of 3, 6, and 9? Answer in simplest radical form.

4) What is the sum of the first ten smallest positive perfect cubes?

5) Evaluate: $45^2 + 55^2 + 65^2$

6) Find the 100th term of the arithmetic sequence: 1, 8, 15, 22, ...

7) Evaluate: $98 \times 111$

8) The sum of two numbers is 40. The positive difference of the two numbers is 4. What is the product of the two numbers?

9) How many positive perfect squares and positive perfect cubes are less than 2013? (You should count twice for a number that satisfies both properties.)

10) Evaluate: $\log_3 27 + \log_4 \frac{1}{16} + \log_8 2$. Express your answer as a common fraction.

11) Express $0.\overline{369}$ as a common fraction.

12) A book has 100 pages. The pages are numbered from 1 to 100, inclusive. What is the sum of all the digits used to number all the pages?

13) What is the probability of drawing two kings in a row, without replacement, from a standard 52-card deck? Express your answer as a common fraction.

14) Evaluate: $LV - XIV$. Express your answer in Arabic Numerals.

15) What is the sum of all positive two-digit integers that are divisible by 5?

16) In the expansion of $(2x - 3y)^6$, find the coefficient of the $x^5y$ term.

17) Let $A$ and $B$ be square matrices. If $|A| = 12$ and $B = A^{-1}$, what is $|B|$ as a common fraction?

18) Solve for $x$: $x = \sqrt{2 - \sqrt{2 - \sqrt{2 - \ldots}}}$

19) What is the maximum number of pieces that can be made by six straight lines cutting through a circle?

20) What is the sum of the number of edges, faces, and vertices of a regular tetrahedron?

21) Find the sum of the first 8 terms of the Fibonacci sequence: 1, 1, 2, 3, ...

22) Using one or more of the positive integers from 1 to 10, inclusive, how many distinct sets will sum up to 10, if you can only use each integer once in each set?

23) What is the area of a triangle with side lengths of 7, 8, and 9? Answer in simplest radical form.

24) What is 15% of 24,680?

25) Evaluate: $13^2 + 39^2$

26) How many positive three-digit integers have exactly two digits that are the same?

27) What is the sum of the positive integral factors of 84?

28) Evaluate: $10002^2 - 9998^2$

29) Tim can mow a lawn in 22 hours and Bryan can mow the same lawn in 18 hours. Mowing at these rates, how fast can Bryan and Tim mow the lawn together? Express your answer in hours and as a mixed number.

30) If $f(x) = 3x - 2$ and $g(x) = 4x + 3$, find $f(g(0)) - g(f(0))$. 
31) Evaluate: \( \binom{20}{3} \)

32) Solve for \( x \) in the following equation:
\( \log_2(x - 1) - \log_2(x + 1) = 3 \)

33) How many positive one-digit integers divide 45,900?

34) What is the sum of the seven smallest positive prime numbers?

35) Compute \( \frac{11}{30} + \frac{11}{40} \) and express your answer as a common fraction.

36) Express 4334\(_{5}\) as a base ten number.

37) Evaluate: \( \sqrt{128 \times 50} \)

38) Two fair six-sided dice are rolled. What is the probability, expressed as a common fraction, of obtaining a sum greater than 10?

39) Find the sum of the roots of the quadratic equation \( 42x^2 + 96x + 345 = 0 \). Express your answer as a common fraction.

40) How many hours are there in 99 days?