

Paper 11

September 13, 2024

1. Find $\frac{3}{7} \times \left(\frac{3}{7}\right)^{-1}$.

2. Find the sum $5 + 10 + 15 + \cdots + 90 + 95$.

3. Express $3^8 + 3^8 + 3^8 + 3^8 + 3^8 + 3^8 + 3^8 + 3^8 + 3^8$ as a power of 3.

4. Compute $3 \times 4 \div \left(\frac{1}{5} \times \frac{1}{6} \right)$

5. Sum of 7 consecutive odd numbers is 63. Find those 7 odd numbers.

6. The product of two facing page numbers of a comic book that Kartikeya is reading is 132. What are the two facing page numbers that Kartikeya is reading?

7. Simplify $\frac{\left(\frac{6}{5}\right)^3 \left(\frac{25}{36}\right)^4}{\left(\frac{5}{6}\right)^4}$

8. The number $A4273B$ is a six digit number in which A and B are digits, and the number is divisible by 72. Find the value of A and the value of B .

9. How many zeros are there at the end of $1 \times 2 \times 3 \times 4 \times \cdots \times 49 \times 50$?

10. Express $2^{20} - 2^{19} - 2^{18}$ as a power of 2.