Paper 10

September 5, 2024

1. Find $\frac{3}{7} \times \frac{7}{3}$.

2. Find $(x + 2y)^3$

3. If x is -1, what is the value of $-2x^3 - 3x^2$.

4. Evaluate $(\frac{1}{3})^{-2} \times (\frac{5}{3})^{3}$

5. Express $5^{17} + 5^{17} + 5^{17} + 5^{17} + 5^{17}$ as a power of 5.

6. There are 200 vehicles - some cars and some scooters. Altogether they have 500 wheels. How many cars and how many scooters are there?

7. For what values of digit d will 700d7 be divisible by 7?

8. If we write all positive integers from 1 to 1000, how many times would we have used 1?

9. How many zeros are there are the end of $1 \times 2 \times 3 \times 4 \times \cdots \times 99 \times 100$?

10. $44 \times 32 = 64 \times \square$