

Revision I

November 25, 2025

- A group of 10 workers can plough a field in 20 days. This group starts the work and after every 2 days, 2 additional workers join the group. The capacity of each worker is the same. In how many days will the field be ploughed?

- A mixture of liquids A and B contains 70% of B by weight. Liquid C is added till the final solution contains 12% by weight of A. What is the ratio (by weight) of B to C in the final mixture?

- Considering all the natural numbers which lie between 1000 and 7770 (not including either), in which place does the digit 7 appear the most?

- On buying a camera, the shopkeeper gives three rolls of film free. On buying a camera and six rolls of film, the shopkeeper gives additional four rolls of film free. If the equivalent discount is the same in both cases, then how many rolls will be equal in value to a camera?

- A mixture of liquids P, Q and R, contains the three in the ratio 2 : 4 : 7 respectively. P and Q are added till the ratio becomes 7 : 4 : 2. Find the ratio of the amounts of P and Q added.

- In how many ways can an amount of Rs.100 be paid using exactly 27 coins of denominations Rs.1, Rs.2 and Rs.5 such that at least one coin of each denomination is used?

- Find the number of distinct terms in the expansion $(x + y + z + w)^{10}$.

- If three runners A, B and C, start simultaneously from the same point and run around a circular track of length 500 m, in the same direction, at speeds 5 kmph, 8 kmph and 15 kmph respectively, what is the time taken by them to meet for the first time at the starting point?

- Tap A and Tap B when opened simultaneously, completely fill an empty tank in 20 minutes. If Tap A alone can fill three-quarters of the tank in 33 minutes, how long will it take Tap B alone to completely fill the tank?

- What is the angle between the minute hand and the hour hand of a clock at 3 hours 40 minutes?

- Find the time between 2 and 3 p.m. at which the minute hand and the hour hand make an angle of 60° with each other.

- The minute hand of a clock overtakes the hour hand at intervals of 65 minutes. How much in day does the clock gain or lose?

- If March 1st, 2024, is a Friday, what day of the week will be September 1st, 2024?

- What day of the week was 29th February 2016?

- What was the day of the week on 26th January 1950?