

Word problems

Name _____

Date _____

Read each problem, set out the calculation or equation and write a complete answer.

1. A well-stirred mixture contains 8 litres of diluted paint, 25% of which is concentrate by volume. Two litres are removed and replaced with 2 litres of water. Assuming the volumes add directly, what percentage of the final mixture is concentrate?

2. A performance sells 120 tickets at £7.50 each, and the payment platform keeps 4% of the ticket income. The organisers then pay £210 to hire the venue. How much of the ticket income remains after these two costs?

3. A rectangular display frame measures 2.4 metres by 1 metre inside its edges. A cord will run straight across the internal diagonal, with an extra 20 cm at each end for tying. What total length of cord is needed, in metres?

4. A fair spinner has eight equal sectors: two blue and six white. It is spun twice, with the spins independent of each other. What is the probability of landing on blue at least once? Give your answer as a fraction in its simplest form.

5. A courier records ten journey times: three journeys take 20 minutes each, four take 25 minutes each, and three take 40 minutes each. By how many minutes does the mean journey time exceed the median?
