

Master Maths 10 Worksheet 5

Decimal Numbers - Problem Solving

5

Name: _____

1. A dam holds 1.876 ML of water. The farmer uses 0.7035 ML to irrigate his farm. What fraction of the dam's water did he use? Write fraction in its simplest form.

2. To make a certain chemical, 1.356 L of nitric acid was added to 3.024 L of benzene. The mixture was poured equally into 15 vials. There was 0.405 L of the mixture remaining. What was the volume of mixture in each vial?

3. An electric generator is rotating at the rate of 2400 revolutions per minute (rpm).

- (a) How many revolutions occur every second?

- (b) What is the time of one revolution?

Give answer in seconds correct to three decimal places.

- (c) The time of each revolution is changed to 0.01875 seconds. How many revolutions occur each minute (rpm)?

4. Hilde swam the 100 m freestyle at the State championships in a time of 58.69 seconds. This was 0.43 seconds faster than the previous record. Olive came second in the race, 0.78 seconds behind Hilde.

- (a) What was the previous record time?

- (b) What time did Olive swim?

5. Willie Wheels clocked a time of 47.352 sec in the first lap of a motor cycle race.

Max Mono, in his first lap, had a time of 47.329 sec.

- (a) Which rider had the fastest time?

- (b) What was the difference between their lap times?

- (c) Willie's second lap was three thousandths of a second faster than his first.

What was the time for his second lap?

- (d) Max's second lap was nine hundredths of a second slower than his first.

What was Max's second lap time?

6. A truck has a load of 60 bags of oats and 80 bags of wheat.

The total (gross) weight of the truck and load is 7.1 tonnes.

At its first delivery point, 20 bags of oats and 30 bags of wheat are unloaded. The gross weight was then 5.8 tonnes.

At its next stop, 20 bags of oats and 40 bags of wheat were unloaded. Its gross weight was then 4.2 tonnes.

- (a) Find the weight (in kg) of a bag of wheat.

- (b) Find the weight (in kg) of a bag of oats.