

Year 4 Term 4 Homework

Student Name: _____	Grade: _____
Date: _____	Score: _____

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This edition was printed on June 2, 2017 with **answers**.

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2 Year 4 Term 4 Week 2 Homework

2.1 Topic 1 — Percentages

Exercise 2.1.1 Change the following percentages to decimals:

1. $112\% =$ _____

2. $0.84\% =$ _____

3. $1.7\% =$ _____

Exercise 2.1.2 Change the following to fractions in their simplest form:

1. $28\% =$ _____

2. $156\% =$ _____

3. $4\% =$ _____

Exercise 2.1.3 Express the each of the following as a percentage:

1. $\frac{102}{1000} =$ _____

2. $\frac{52}{500} =$ _____

3. $0.012 =$ _____

Exercise 2.1.4 Further applications

1. Find 120% of \$800.00 _____

2. The price of a Nintendo DS lite is \$180. It is being sold at a 5% discount. What is the price of the Nintendo DS lite console?

3. 56 marks out of 80, what percentage is that? _____

4. 34 marks out of 40 expressed as a percentage is: _____

5. At a school of 500 students, there are 80 more girls than boys. What percentage of students enrolled are boys?

2.2 Topic 2 — Ratio

Exercise 2.2.1

1. It takes $5\frac{1}{2}$ second for an electric saw to cut through a log of wood. How long would it take for the saw to cut the wood into 7 equal pieces?

2. A tank is $\frac{3}{5}$ full of water. It would take another 28 L of water to fill it. What is the capacity of the tank?

3. 16 bunches of bananas are bought at the market for \$72. How many bunches could be bought with \$81?

4. It took 12 minutes for a car to cover 15 km. At this rate, how long would it take to travel 135 km?

5. 25 kg of rice can be bought for \$48. How much would 10 kg cost?

2.3 Topic 3 — Rate

Exercise 2.3.1

1. A car travelled 8 km in 10 minutes. How long would it take me to travel 56 km at this rate?

2. A bus travels 15 km on 2 litre of petrol. At this rate, how much petrol will be used if the bus travels a distance of 240 km?

3. Victor can type 420 words in 7 minutes. At what rate is he typing?

4. Carson is paid \$220 for a working day of 8 hours. At what rate is he paid per hour?

5. Water is dripping from a hole in a fish tank at a rate of 50 mL per minute.

(a) How much water will flow out from the tank in half an hour?

(b) If an empty basin is paced below the dripping hole, how long will it take the basin to collect 3 L 600 mL of water from the dripping tank?

2.4 Topic 4 — Divisibility

Exercise 2.4.1

1. The pages of a certain book are numbered consecutively from 1 to 300. How many page numbers contain the digit 5 and are also divisible by 5?

2. Find the missing digit so that the resulting number is divisible by 9:

(a) 1345 _____ 26

(b) _____ 348

(c) 4 _____ 57832

3. Find all possible values for the missing digit so that the resulting number is divisible by 3:

(a) 12 _____ 45 ; _____

(b) 380 _____ 2 ; _____

(c) _____ 2378 ; _____

4. Find all possible values for the missing digit in _____ 5 _____ so that the resulting number is divisible by 9.

What is the smallest number that is divisible by 4, 6 and 16?

5. What is the smallest number that is greater than 100 and is divisible by 4, 6 and 16?

2.5 Problem Solving

Exercise 2.5.1

1. A printer can print 10 pages in 8 seconds.

(a) At this rate, how many copies can it print in 5 minutes?

(b) How long will it take to print 150 copies?

2. The ratio of the length to the breadth to the height of a cuboid is $9 : 5 : 5$. Its length is 12 cm longer than its breadth. Find its volume.

3. A rectangular tank is filled with water to a height of 4 cm. Its rectangular base measures 25 cm by 18 cm. When 18 litres of water are poured into the tank, the water level rises to half of the height of the tank. Find the height of the tank.

4. $\frac{3}{5}$ of a rectangular tank with a base area of 800 cm^2 is filled with water. Another 2.4 L of water are needed to fill this tank to its brim. What is the height of the water in the tank?

2.6 Diagnostic Test

1. A car travelled 215 km on 50 litres of petrol. How far would it travel on 18 litres of petrol? [10]

1. _____

2. $\frac{5}{9}$ of a rectangular tank with a base area of 450 cm^2 is filled with water. Another 3.6 L of water are [10] needed to fill this tank to its brim. What is the height of the water in the tank?

2. _____

3. Bob bought a squash racket and 6 squash balls for \$90. The racket cost \$71.10 more than each ball. [10] How much did the racket cost?

3. _____

4. A watch cost thrice as much as a calculator. A MP3 player cost \$7.50 more than the watch. Tom [10] bought 4 of each item. He paid \$590 for them. How much did he pay for each watch?

4. _____

5. The ratio of the mass of Tony to the mass of Mike is 9 : 7. Mike is 26 kg lighter than Tony. Find [10] the total mass of the two men.

5. _____

6. Mary made apple drinks by mixing apple syrup and water in the ratio 3 : 8. If she used 40 litres [10] more water than syrup, how much syrup did she use?

6. _____

7. The length of a rectangle is 180% that of its breadth. The perimeter of the rectangle is 84 cm. Find [10] the area of the rectangle.

7. _____

8. The length of a rectangle is 40% of its perimeter. If the length of the rectangle is 12 cm longer than [10] its breadth, find the area of the rectangle.

8. _____

9. Crystal spent 28% of her salary on rent and 44% of it on food. She saved the remaining money [10] which was \$140. How much was her salary?

9. _____

10. There were 4 students sitting on the stage at the school assembly waiting to receive their prizes. [10] Alice and Bonnie wanted to sit together. If they did, how many different arrangements of students would there be?

10. _____