

Year 4 Term 4 Homework

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

Table of contents

3	Year 4 Term 4 Week 3 Homework	1
3.1	Topic 1 — Percentages	1
3.2	Topic 2 — Ratio	2
3.3	Topic 3 — Rate	3
3.4	Problem Solving	4
3.5	Miscellaneous Exercises	5
3.6	Diagnostic Test	7

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

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3 Year 4 Term 4 Week 3 Homework

3.1 Topic 1 — Percentages

Exercise 3.1.1 Change the following to fractions in their simplest form:

1. $55\% =$ _____

2. $124\% =$ _____

3. $0.4\% =$ _____

Exercise 3.1.2 Express the each of the following as a percentage:

1. $\frac{183}{1000} =$ _____

2. $\frac{9}{250} =$ _____

3. $\frac{103}{200} =$ _____

Exercise 3.1.3 Arrange each set of numbers in ascending order.

1. 40% , 0.8 , 75% , $\frac{1}{2}$ _____

2. $\frac{7}{10}$, 65% , $\frac{4}{5}$, 72% _____

3. $1\frac{1}{2}$, 155% , 1.2 , 122% _____

Exercise 3.1.4 Further applications

1. *20% of a number is 16. What is the number?*

2. *120% of a number is 42. Find the number.*

3. *Last year, George saved \$600 monthly. This year, he increased his monthly savings by 20%. How much more money will he be able to save this year compared to last year?*

3.2 Topic 2 — Ratio

Exercise 3.2.1

1. Daniel gave $\frac{1}{2}$ of his money to his two sons. Johnny received \$125 and David received \$175. What fraction of Daniel's money did David receive?

2. The ratio of Sam's money and Ken's money is 3:7. Sam has \$80 less than Ken. How much money do they have altogether?

3. The ratio of the number of boys to the number of girls in a school is 5:8. There are 360 more girls than boys. What is the enrolment of the school?

4. The ratio of the mass of Tom and the mass of Bob is 9:7. Bob is 24 kg lighter than Tom. Find the total mass of the two men.

5. In an orchard, the ratio of the number of mango trees to the number of apple trees to the number of pear trees is 12:4:7. There are 350 more mango trees than pear trees. Find the total number of apple and pear trees in the orchard.

3.3 Topic 3 — Rate

Exercise 3.3.1

1. A new train is 500 m long and is travelling at 58km/h. A old train is 400 m long and is travelling at 32 km/h. The trains are travelling towards each other. Originally, these trains are 450 km apart.

(a) How long will it take for the 2 trains to reach each other?

(b) How long after the front part of the trains meet, will their rear pass each other?

2. A train that is 500 m long is travelling at 50 km/h. If the train enters a tunnel that is 8 km long, how long will it take for the train to clear the tunnel?

3. A car and a truck leave at the same time from two towns. They travel towards each other. If the car was travelling at 80 km/h and the truck was travelling at 40 km/h. If they passed each other after 5 hours, what is the distance of the two towns?

4. A car and a bus leave at the same time from two towns 300 km apart. They travel towards each other. If the car was travelling twice as fast as the bus, and they pass each other after 4 hours, how fast was each vehicle travelling?

3.4 Problem Solving

Exercise 3.4.1

1. The length of a rectangle is 48 cm. Its breadth is $\frac{1}{6}$ its length. Find the area of the rectangle.

2. Richard added 30 to a number. He then divided the result by 3 the answer was 36. Find the number.

3. Cathy bought 6.5 kg of fish at \$12.60 per kilogram. She gave the fishmonger two \$50 notes. How much change should she receive?

4. A bottle containing 720mL of orange juice is $\frac{3}{5}$ full.

(a) How much more juice must be added to make it $\frac{3}{4}$ full?

(b) How much juice must be poured out to make it $\frac{1}{4}$ full?

5. Last month, Mike put \$1.20 into his piggy bank each day. This month, he increases the amount by 50%. At this rate, how much more will Mike be able to save in a month in which there are 31 days?

3.5 Miscellaneous Exercises

Exercise 3.5.1

1. A bag of 5 apples costs \$4. What is the largest number of apples that can be bought for \$20.00?

2. Judy divide 27.8 by a number. She got 1.39 as the answer. What number did Judy divide by?

3. What is the largest even number that can be made using three of the following numbers?
(4, 3, 5, 7, 1)

4. What is the largest odd number that can be made using three of the following numbers?
(6, 3, 4, 8, 2)

5. How many tens are there in the number 123.45? _____

6. There are 50 marbles in a bag. twelve marble are red, the rest are black. Anna picks a marble from a bag without looking. What is the chance of her picking a black marble?

7. Suppose today is Monday. What day of the week will it be 50 days from now?

8. Find the sum of the first 20 counting numbers?

Exercise 3.5.2

1. Joyce has 20 coins consisting of 5-cent coins and 20-cent coins. The total value of the coins is \$3.25. How many of each kind does Joyce have?

2. A motorist made a 60 km trip average 30 km/h. On the return trip, his average speed was 20 km/h. What was the average speed for his entire trip?

3. If 15 is added to one half of a number, the result is the double of the number. What is the number?

4. The product of two number is 64 and their difference is 12. What is the sum of the two numbers?

5. The perimeter of a rectangle is 16 cm and the length of each side is a whole number. How many rectangles with different shapes satisfy these conditions?

6. The sum of the masses of John and Bob is 125 kg and one boy is 15 kg lighter than the other. What is the mass of the heavier boy?

3.6 Diagnostic Test

1. 40% of a number is 16. What is the number? [5]

1. _____

2. 120% of a number is 48. Find the number. [5]

2. _____

3. There are 2000 rabbits. 345 of them are black. The white rabbits are 36 fewer than black rabbits and the rest are grey. How many more grey rabbits than the white rabbits? [5]

3. _____

4. James, Alice and Emma have \$239, \$345 and \$547 respectively. How much must Emma give to James and Alice so that each of them would have the same amount of money? [5]

4. _____

5. How many times does the digit '5' appear from page 1 to page 200 in a storybook? [10]

5. _____

6. Adam and Bob have \$240. Bob and Cathy have \$120. Cathy has twice as much as Bob. How much does Adam have? [10]

6. _____

7. Each pot costs \$30 less than each kettle. The total cost of 5 such kettles and 5 such pots is \$600. Find the cost of each pot. [10]

7. _____

8. The product of 3 numbers is 84. The first number is 4. What is the possible smallest value of the second number and the possible greatest value of the third number? [10]

8. _____

9. Page A and B are two facing pages in a book. Pages C and Page D are the next two facing pages of [10] the same book. The sum of these four pages is 242. What is the Page number for Page D?

9. _____

10. Gordon is 32 years older than his son Jeffrey. In 5 year's time their total age will be 62 years. Find [10] Gordon's present age.

10. _____

11. John bought apples at 3 for \$5. What was the maximum number of apples that he could buy with [10] \$58?

11. _____

12. Bonnie was given 95 red beads and 100 green beads to be put equally into some boxes without any [10] remainder. What is the smallest number of boxes possible?

12. _____