



Percentages (part 2)

Exercises

Learning Skills

Introduction:

To reinforce what was learnt in [part 1](#) of this topic we have included some exercises for you to try out. Answers can be found at the end of this document. Contact one of our Maths Advisers if you have any problems.

1. Convert the following percentages to fractions expressed in simplest form

- 1.1. 37% 1.2. 13% 1.3. 91% 1.4. 55% 1.5. 12% 1.6. 8.5%

2. Change the following percentages to decimals

- 2.1. 13% 2.2. 6% 2.3. 5.4%

3. Convert to a percentage

- 3.1. 0.07 3.2. 0.2 3.3. 0.475 3.4. $\frac{11}{25}$ 3.5. $\frac{16}{50}$ 3.6. $\frac{1}{40}$

4. Complete the following table

Percentage	29%			35%				
Decimal		0.05			0.3		0.8	
Fraction			$\frac{6}{50}$			$\frac{26}{200}$		$\frac{11}{20}$

5. Application questions

- 5.1. Sue received a test mark of 17 out of 25. What percentage is this?
- 5.2. Jan paid a \$200 deposit on a \$2500 computer. What percentage of the purchase price is this?
- 5.3. Brian paid \$112 on an outstanding bankcard balance of \$350.
- a) how much does he still owe?

 - b) work out the amount still owing as a percentage of the total
- 5.4. A student scored 35 out of 40 for his first test and 45 out of 60 for his second. Work out each as a percentage and state the best score?

6. More application questions

- 6.1. Jim allocates 30% of his income to cover his rent. He earns \$550 a week. How much is his rent?
- 6.2. In a TAFE college 40% of the students were born outside Australia. If the total enrolment is 6000, how many students is this?
- 6.3. Vicki earns \$450 per week. She receives a pay rise of 6%. What is her new salary?
- 6.4. A selection test was passed by 70% of the applicants. If 200 people sat the test, how many failed?

7. Answers

1.1. $\frac{37}{100}$

1.3. $\frac{91}{100}$

1.5. $\frac{12}{100} = \frac{3}{25}$

1.2. $\frac{13}{100}$

1.4. $\frac{55}{100} = \frac{11}{20}$

1.6. $\frac{8.5}{100} = \frac{17}{100}$

2.1. 0.13

2.2. 0.06

2.3. 0.054

3.1. 7%

3.3. 47.5%

3.5. 32%

3.2. 20%

3.4. 44%

3.6. 2.5%

4.

Percentage	29%	5%	12%	35%	30%	13%	80%	55%
Decimal	0.29	0.05	0.12	0.35	0.3	0.13	0.8	0.55
Fraction	$\frac{29}{100}$	$\frac{1}{20}$	$\frac{6}{50}$	$\frac{7}{20}$	$\frac{3}{10}$	$\frac{26}{200}$	$\frac{4}{5}$	$\frac{11}{20}$

5.1. mark = $17 \div 25 \times 100 = 68\%$

5.2. Purchase price % = $200 \div 2500 \times 100 = 8\%$

5.3. i) $\$350 - \$112 = \$238$

ii) amount owing % = $238 \div 350 \times 100 = 68\%$

5.4. 1st test = $35 \div 40 \times 100 = 87.5\%$

2nd test = $45 \div 60 \times 100 = 75\%$

therefore the 1st test is the best

6.1. rent = $30 \div 100 \times 550 = \165

6.2. number of students = $40 \div 100 \times 6000 = 2400$

6.3. payrise = $6 \div 100 \times 450 = \27 therefore she earns $\$27 + \$450 = \$477$

6.4. number of students passing = $70 \div 100 \times 200 = 140$ so number failing = 60

8. For more information

Visit our Learning Skills website at <http://www.csu.edu.au/division/studserv/maths/index.htm>

Part 1 of this document can be found at <http://www.csu.edu.au/division/studserv/maths/teachered.htm>

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