

PRE-ACCREDITATION

Maths & Literacy for Childcare

Contents

Introduction

About the author

Acknowledgements

v

vi

vi

LITERACY		
Unit 1	Spelling	1
Unit 2	Alphabetising	2
Unit 3	Comprehension	3
MATHEMATICS		
Unit 4	General Mathematics	5
Unit 5	Basic Operations Section A: Addition Section B: Subtraction Section C: Multiplication Section D: Division	9
Unit 6	Decimals Section A: Addition Section B: Subtraction Section C: Multiplication Section D: Division	14
Unit 7	Fractions Section A: Addition Section B: Subtraction Section C: Multiplication Section D: Division	19
Unit 8	Percentages	22
Unit 9	Measurement Conversions	24

Unit 10	Earning Wages/Work Time	26
Unit 11	Squaring Numbers Section A: Introducing square numbers Section B: Applying square numbers to the trade	28
Unit 12	Ratios	31
Unit 13	Rebates	33
Unit 14	Practice Written Test for the Childcare Trade	35
Glossary		44
Formulae and Data		45
Notes		48

SAMPLE PAGES

Unit 5: Basic Operations

Section A: Addition

Short-answer questions

Specific instructions to students

- This section will help you to improve your addition skills for basic operations.
- Read the questions below and answer all of them in the spaces provided.
- You may not use a calculator.
- You need to show all working.

QUESTION 1

A director purchases items for a childcare centre which includes four small chairs for \$125, storage bins for \$60 and six bottles of hand sanitiser for \$35. What is the total?

Answer:



QUESTION 2

Four computers costing a total of \$3980 are purchased for a childcare centre, as well as two printers for \$130. How much, in total, has been spent?

Answer:

QUESTION 3

A childcare centre stocks 57 plates, 68 cups and 123 pairs of disposable gloves. How many items, in total, are in stock?

Answer:

QUESTION 4

An out-of-hours care centre buys four bottles of hand sanitiser for \$48, three learning charts for \$51, five dance

CDs for \$95 and two new disposable cameras for \$34. How much in total has been spent?

Answer:

QUESTION 5

Family day care uses the following amounts of juice in one day: 1500 mL in the morning, 1400 mL for lunch and 2000 mL in the afternoon. What amount has been used in total?

Answer:

QUESTION 6

Six books based on nursery rhymes are purchased for a childcare centre at the following costs: \$8, \$12, \$19, \$5, \$6 and \$9. How much has been spent in total?

Answer:

QUESTION 7

A number of first-aid kits need restocking, so the following items are purchased: bandaids for \$13, gauze dressings for \$12 and saline solution for \$9. What is the total cost of the items?

Answer:

QUESTION 8

Eight bottles of sunscreen are purchased for \$55, seven containers of wipes for \$49 and three packets of toilet rolls for \$24. How much has been spent?

Answer:

Unit 10: Earning Wages/Work Time

Short-answer questions

Specific instructions to students

- This unit will help you to calculate how much a job is worth and how long you need to complete the job.
- Read the following questions and answer all of them in the spaces provided.
- You may not use a calculator.
- You need to show all working.

QUESTION 1

Alison works part-time at vacation care and earns \$260.60 net (take home) per week. How much does Alison earn per year? (Remember, there are 52 weeks a year.)

Answer:

QUESTION 2

Laura starts work at 8.00 a.m. and has a break at 10.30 a.m. for 20 minutes. Lunch starts at 12.30 p.m. and finishes at 1.30 p.m. Laura then works through to 4.00 p.m.

- a How long are the breaks in total?

Answer:

- b How many hours have been worked in total, excluding breaks?

Answer:



QUESTION 3

A childcare centre director gets paid \$18.50 per hour and works a 38-hour week. How much is the gross earnings (before tax)?

Answer:

QUESTION 4

A carer gets paid \$513 net for the week's work. From this, they buy new clothes at a cost of \$46.90, jewellery worth \$49.50, CDs worth \$59.97 and a bus ticket which costs \$12.60. They also spend \$55 on entertainment.

- a What is the total of all money spent?

Answer:

- b How much is left of the week's wage?

Answer:

QUESTION 5

The following time is taken by the carers on these activities before lunch with the toddler's and preschooler's group: set up and have breakfast with the children – 45 minutes; choice of play – 60 minutes; morning tea – 30 minutes; painting and craft – 45 minutes; children getting ready for a nap and carers setting up the beds and putting on clean sheets – 25 minutes. How much time, in minutes and hours, has been taken on these activities in total?

Answer:

QUESTION 6

A group from vacation care leaves the centre at 9.00 a.m. and they travel by bus to a recreation park. They arrive at the park at 9.50 a.m. Once the group has been admitted, they have 2 hours to play. Lunch is at 12 noon for 45 minutes. This is followed by structured activities in the main park area, which includes orientation and bush safety. These activities conclude at 2.00 p.m. Everyone boards the bus and arrives back at the centre at 3.10 p.m.

- a How much time is spent travelling?

Answer:

Unit 12: Ratios

Short-answer questions

Specific instructions to students

- This section is designed to help you improve your skills in calculating and simplifying ratios.
- Read the following questions and answer all of them in the spaces provided.
- You may not use a calculator.
- You need to show all working.

QUESTION 1

If the ratio of carers to children over five years old is 1:15 and there are 45 children over five years old at a day care centre, how many carers are needed?

Answer:

QUESTION 2

If the ratio of carers to children, from the above question, changed to 1:12 and three more children were added to the group, how many carers are now needed?

Answer:

QUESTION 3

A vacation care centre has 90 children over five years of age.

- a How many carers are needed if a ratio of 1:15 is required?

Answer:

- b If the ratio changes to 1:12, does the number of carers need to change? If so, to how many?

Answer:

QUESTION 4

In the babies' room at a childcare centre, the ratio of carers to babies is 1:3. If there are 12 babies in the room, how many carers are needed?

Answer:

QUESTION 5

On an excursion to the beach, the ratio of carers to children is one carer to 10 children. If there are 125 children, how many carers will be required?

Answer:

QUESTION 6

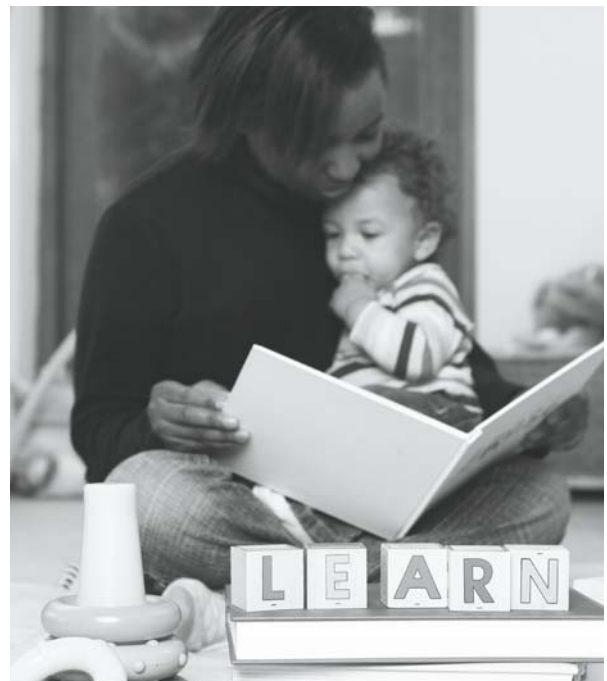
If the ratio of carers to children is 1:12 and there are 100 children at an out-of-hours care centre, how many carers should be present?

Answer:

QUESTION 7

If there are three carers in a babies' room and the ratio of carers to babies is 1:3, how many babies would there be?

Answer:



Unit 13: Rebates

Short-answer questions

Specific instructions to students

- This unit will help you to calculate rebates.
- Read the following questions and answer all of them in the spaces provided.
- You may not use a calculator.
- You need to show all working.

QUESTION 1

A child is in day care for three hours per day for five days a week. The family is charged \$77.50 and they receive a rebate of \$27.65.

- a How many hours per week has the child been in care?

Answer:

- b How much does the family pay *after* the rebate?

Answer:

QUESTION 2

A family has a child in day care for 12 hours a day for five days. They are charged \$310 and they receive a rebate of \$110.60.

- a How many hours per week has the child been in care?

Answer:

- b How much does the family pay *after* the rebate?

Answer:

QUESTION 3

Using the information from Question 2, calculate the following if the same child is in day care for four weeks:

- a How many hours would the child have been in care?

Answer:

- b How much will the family be charged *before* the rebate?

Answer:

- c How much will the rebate be?

Answer:

- d How much will the family need to pay *after* the rebate is deducted?

Answer:

QUESTION 4

A child is in day care for 12 hours per day for five days a week. If the weekly cost is \$310 and the rebate for the same period is \$110.60, how much does it cost to have the child in day care for six months:

- a before the rebate?

Answer:

- b after the rebate?

Answer:

QUESTION 5

Using the information from Question 4, calculate how much it would cost to have the same child in care for twelve months:

- a before the rebate?

Answer:

- b after the rebate?

Answer:

Childcare

Practice Written Exam for the Childcare Trade

Reading time: 10 minutes

Writing time: 1 hour 30 minutes

Section A: Literacy

Section B: General Mathematics

Section C: Trade Mathematics

QUESTION and ANSWER BOOK

<i>Section</i>	<i>Topic</i>	<i>Number of questions</i>	<i>Marks</i>
A	Literacy	7	22
B	General Mathematics	11	25
C	Trade Mathematics	34	53
		Total 52	Total 100

The sections may be completed in the order of your choice.
NO CALCULATORS are to be used during the exam.

b $(8 \times 12) \times 2 + 8 - 4 =$

Answer:

Section C: Trade Mathematics

Basic Operations

Addition

QUESTION 1 1 mark

A day care centre purchases 36 bottles of glue, 144 coloured pencils and 15 erasers. How many items have been purchased in total?

Answer:

QUESTION 2 1 mark

A cook buys fruit for \$25, chicken breasts for \$45 and milk for \$17. How much has been spent in total?

Answer:

Subtraction

QUESTION 1 1 mark

A family day care centre uses 57 nappies over a month from a packet that contains 150 nappies. How many remain?

Answer:

QUESTION 2 1 mark

Play equipment is purchased for \$124. The store manager takes off a discount of \$35 during a sale. How much does the customer pay?

Answer:

Multiplication

QUESTION 1 2 marks

A vacation care centre purchases four chairs for children for \$24 each, two computers for \$635 each and three tricycles costing \$32 each. What is the total cost?

Answer:

QUESTION 2 1 mark

New staff shirts are purchased for all staff. If one shirt costs \$23, how much will eight cost?

Answer:

Division

QUESTION 1 1 mark

An out-of-hours centre purchases six new air conditioners for \$3155. How much would each one cost?

Answer:

QUESTION 2 1 mark

If there are 144 slices of bread to make fairy bread and there are 36 children, how many slices will each child receive?

Answer:

Decimals

Addition

QUESTION 1 1 mark

The following items are purchased for a vacation care centre: five packets of crayons for \$19.95, six plastic cereal bowls for \$9.50 and four sets of paint brushes for \$34.50. How much for the purchases in total?

Answer:

QUESTION 2 1 mark

Three Aboriginal dance CDs cost \$39.50, \$43.50 and \$21.50. How much is the total for all three CDs?

Answer:
