

# Numeracy

## 2019 Q1 NUmeracy

Today's date:

Given name:

Family name:

Organisation:

Course:

Gender:

Female  Male

Date of birth:

Is English your first language?  Yes  No

If No, what is your first language?

What ethnic group(s) do you belong to?

(For example, New Zealand European, Māori, Samoan, Tongan.)

Learner Identification (optional)

NSN:

SMS ID:



# Instructions

This is an assessment of how well you understand numeracy problems.

The practice questions below help you to understand different sorts of numeracy questions. When you have finished the practice questions please turn the page and begin the assessment. You may need to wait for your tutor to tell you when to begin.

You need to choose the answer you think is best for each question. It is a good idea to read parts of the text again before choosing each answer.

Answer every question, even if you are not quite sure of the answer. If you change your mind about an answer, rub out the answer you chose and shade in your new answer. The questions are likely to get harder as you go through the book.

There is no time limit for the assessment. You will be given about 15 questions to answer.

## Practice Unit



1 How many cakes are in the cake tray?

- A  10
- B  11
- C  12
- D  13



2 How many trays do you need to bake **24** cakes at the same time?

\_\_\_\_\_ trays



3 You have 3 of these trays. How many cakes could you bake altogether?

\_\_\_\_\_ cakes

Show your calculations below.

12

15

14

13

11



4 Write these five numbers in order from **smallest** to **largest**.

**Smallest** \_\_\_\_\_ **Largest**



5 Are the numbers below larger than 20?

Circle Yes or No for **each one**.

- |      |     |    |
|------|-----|----|
| A 7  | Yes | No |
| B 23 | Yes | No |
| C 31 | Yes | No |
| D 18 | Yes | No |

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## Number patterns



- 1 Ra continues counting this number pattern.  
532, 522, 512, 502, ... ?

Which of these is the next number he should say?

- A  482
- B  492
- C  500
- D  501
- E  512

## Apple Fraction



Here are 7 items of fruit.

2 What fraction of the 7 items of fruits are apples?

- A   $\frac{1}{2}$
- B   $\frac{1}{3}$
- C   $\frac{2}{5}$
- D   $\frac{2}{7}$



Anahera's number

My number is:  
forty five



Anahera

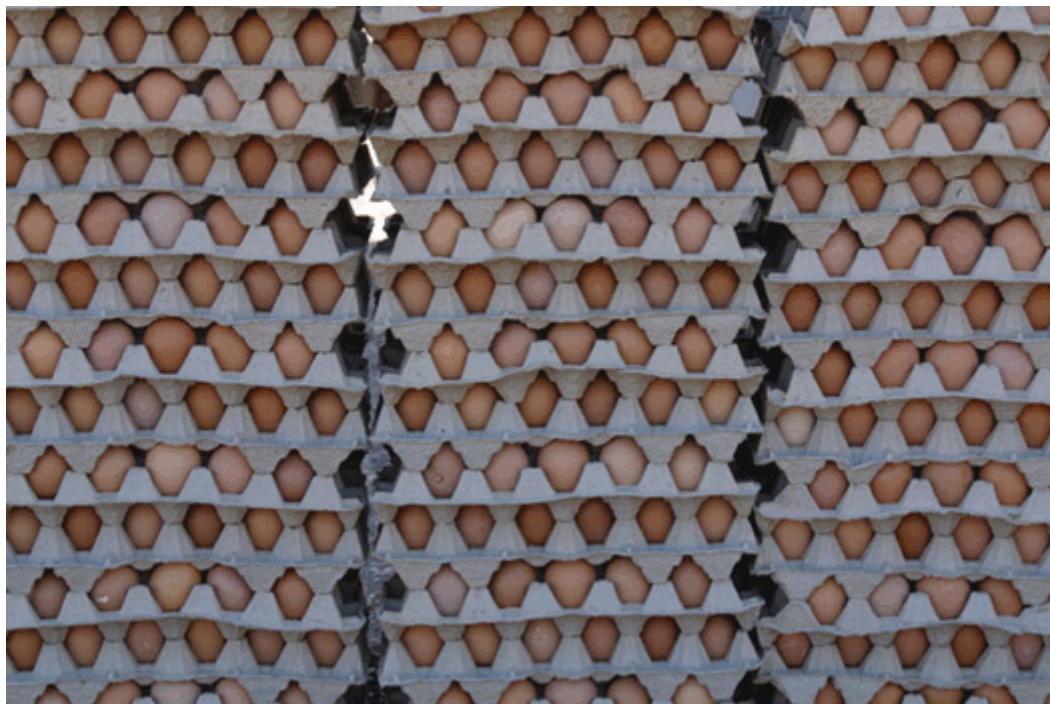


3 Is Anahera's number the same as the following?

Circle **Yes** or **No** for each one.

- |   |          |     |    |
|---|----------|-----|----|
| A | 54       | Yes | No |
| B | 45       | Yes | No |
| C | $4 + 5$  | Yes | No |
| D | $40 + 5$ | Yes | No |
| E | $50 + 4$ | Yes | No |

## Stacks of eggs 1



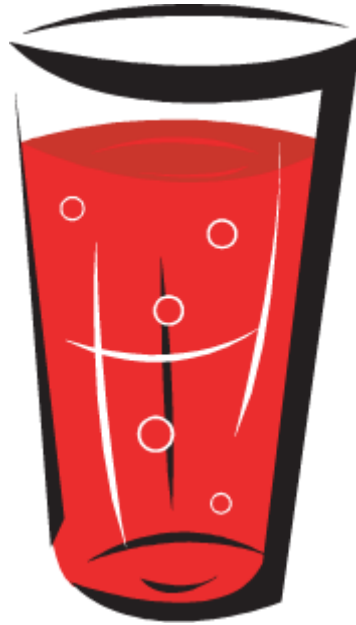
A supermarket has 200 trays of eggs. The trays have 30 eggs each.



4 How many eggs are there altogether?

- A  230
- B  600
- C  6,000
- D  20,030
- E  60,000

## Making a sweet drink



Sweet drinks can be made by mixing syrup with water.



5 If you use  $\frac{1}{4}$  cup of syrup, how much water do you add to make 1 cup of sweet drink?

- A   $\frac{1}{2}$  cup
- B   $\frac{1}{4}$  cup
- C   $\frac{3}{4}$  cup
- D  1 cup
- E   $\frac{2}{3}$  cup

### Fluid intake

| Fluid Intake Chart     |              | Patient – <i>Aroha Wipipi</i> |                   |
|------------------------|--------------|-------------------------------|-------------------|
| Date – <i>May 27th</i> |              |                               |                   |
| Time                   | Fluid Type   | Amount offered (mL)           | Amount taken (mL) |
| <i>0600</i>            | <i>Juice</i> | <i>150</i>                    | <i>100</i>        |
| <i>0900</i>            | <i>Tea</i>   | <i>180</i>                    | <i>180</i>        |
| <i>1230</i>            | <i>Soup</i>  | <i>250</i>                    | <i>125</i>        |
| <i>1530</i>            | <i>Tea</i>   | <i>180</i>                    | <i>180</i>        |
| <i>1800</i>            | <i>Juice</i> | <i>150</i>                    | <i>100</i>        |
| <i>2130</i>            | <i>Tea</i>   | <i>180</i>                    | <i>90</i>         |
| <i>2330</i>            | <i>Water</i> | <i>1,000</i>                  | <i>450</i>        |
| <b>Total Column</b>    |              |                               | <b>? mL</b>       |

6 What is the total amount of fluid taken by the patient for that day?

- A  935 mL
- B  1,135 mL
- C  1,125 mL
- D  1,153 mL
- E  1,225 mL

## Paying bills



Five people share a flat.  
They each pay an equal share of the rent.

7 What fraction of the rent does each person pay?

$$\frac{\square}{\square}$$

## Forklift load



# Maximum Load Capacity: 1.8 tonnes

Kim drives this forklift truck, which has a maximum load capacity of 1.8 tonnes.

8 Can Kim lift the following loads with this forklift?

Circle **Yes** or **No** for each one.

|               |     |    |
|---------------|-----|----|
| A 1.92 tonnes | Yes | No |
| B 1.59 tonnes | Yes | No |
| C 1.09 tonnes | Yes | No |
| D 1.86 tonnes | Yes | No |

## Building a house



Tim spent 50 minutes working by himself, and then worked with Leslie for 90 minutes. Then he stopped for a break.

9 How long did Tim spend working before his break?

- A  1 hour 24 minutes
- B  1 hour 40 minutes
- C  2 hours
- D  2 hours 20 minutes
- E  2 hours 33 minutes
- F  2 hours 40 minutes

## Relay swimmers



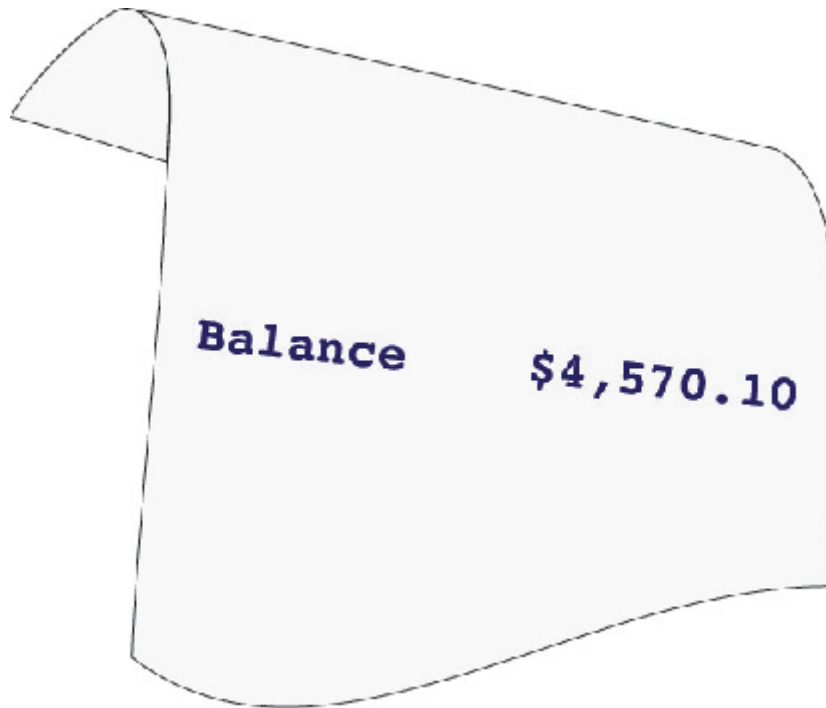
There are four people in this relay team.  
Each person will swim exactly the same distance in the race.

- 10** What fraction of the total race distance will each person swim?

$$\frac{\square}{\square}$$



## Cash balance reconciliation



Ngahuia counted the money in the cash register. She counted a total of **\$4,528.40**. This did not match the balance on the cash register receipt.

- 11** What is the difference between the amount Ngahuia counted and the amount on the cash register receipt shown?
- A  \$41.70
  - B  \$42.60
  - C  \$48.70
  - D  \$58.30

### Bigger or smaller estimation

29 x 39 is about 1,200  
because 30 x 40 = 1,200



Huia



12 Which of the following is the **best** statement about Huia's estimate?

- A  The actual answer is close to 1,200 but a little larger.
- B  The actual answer is very close to 1,200.
- C  The actual answer is close to 1,200 but a little smaller.
- D  The actual answer may be larger than or smaller than 1,200.

### Decimal division

13 How many 12's in 248.04 ?

- A  0.048
- B  20.67
- C  20.7
- D  26.7
- E  236.04

## Caregiver cleaning duties

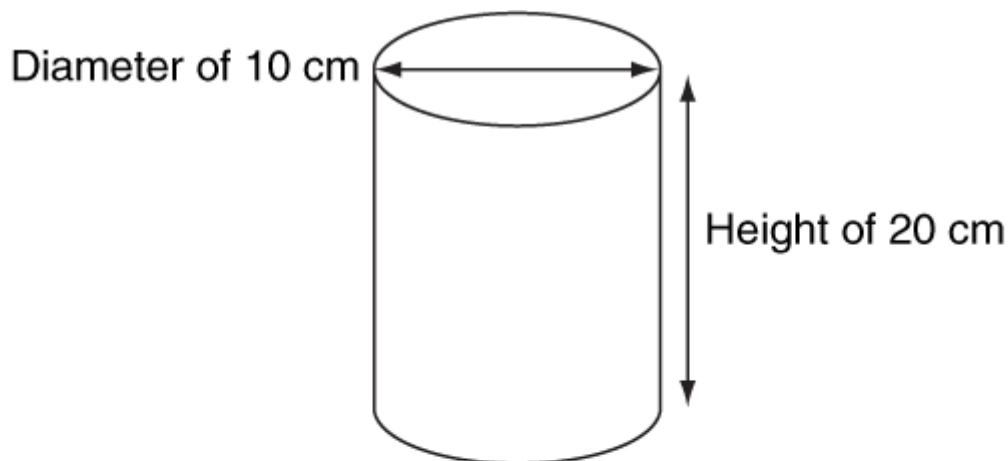


Emma is a Personal Assistant. She spends **two-thirds** of her time doing cleaning duties.

- 14** If Emma works 18 hours in one week, how many of these hours are spent cleaning?

\_\_\_\_\_ hour(s)

### Volume of a cylinder



#### Measurement Formula

Circumference of a circle:  $2 \times \pi \times r$

Area of a rectangle:  $A = L \times W$

Area of a triangle:  $A = \frac{1}{2} B \times H$

Area of a circle:  $A = \pi \times r^2$

Volume of a regular prism:  $V = \text{area of base (cross-section)} \times \text{height}$

Volume of rectangular prism:  $V = L \times W \times H$

Volume of a cylinder:  $V = \pi \times r^2 \times H$

Note:

A = area

L = length

W = width

H = height

B = base

r = radius

V = volume

$\pi = 3.14$  (or  $\frac{22}{7}$ )

15 What is the volume of this cylinder?

\_\_\_\_\_  $\text{cm}^3$

Show your calculations below.

**End of Assessment**