

YEAR 9 NUMERACY – SET 6

Answer these questions without using a calculator.

Name Date

A square corner measuring x cm by x cm is cut out of this rectangular sheet of paper.



1

Which of these statements is true for the piece of paper that remains?

- Its area is $ab - x^2$ and its perimeter is $2a + 2b$.
- Its area is $(ab - x)^2$ and its perimeter is $2(a+b)$.
- Its area is $ab - x^2$ and its perimeter is $2(a + b - x)$.
- Its area is $(ab - x)^2$ and its perimeter is $2a + 2b - 4x$.

2

A straight-line graph goes through the points $(0, 6)$ and $(3, 0)$.
Which one of these points does this line graph **also** go through?

$(-1, 4)$

$(1, 5)$

$(2, 4)$

$(4, -2)$

3

Which of these expressions is the same as $10 - 3(3z - 2)$?

$21z - 2$

$21z - 14$

$4 - 9z$

$16 - 9z$

4

The difference between two whole numbers is 13.
When the two numbers are multiplied together, the result is 30.

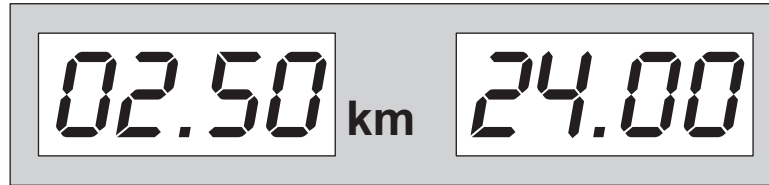
What are these two numbers?

and

YEAR 9 NUMERACY – SET 6

A treadmill shows the distance walked by a user and the number of minutes it has taken to cover that distance.

5



The walking speed (in km/hr) of the user is closest to

5

6

7

10

The odd numbers between 10 and 30 are written on cards, one number to a card.

A card is drawn at random from this set.

What is the probability that the card shows a prime number?

6

$\frac{3}{5}$

$\frac{3}{10}$

$\frac{7}{10}$

$\frac{7}{20}$

A school has a total of 1500 students in Years 1 to 12.

Three-fifths of the students are in the primary section in Years 1 to 7.

8% of the primary school students are left-handed.

7

The number of left-handed students in the primary section is

56

72

90

120

The population of Vietnam is approximately 4 times the population of Australia.

The population of Brazil is approximately 8 times the population of Australia.

The population of Australia is approximately 5 times the population of New Zealand.

8

About how many times larger than the population of New Zealand is the population of Vietnam?

times.