

# NUMERACY NON-CALCULATOR



YEAR  
**7**  
2016

## SESSION 2

**40 min**

Time available for students to  
complete test: 40 minutes

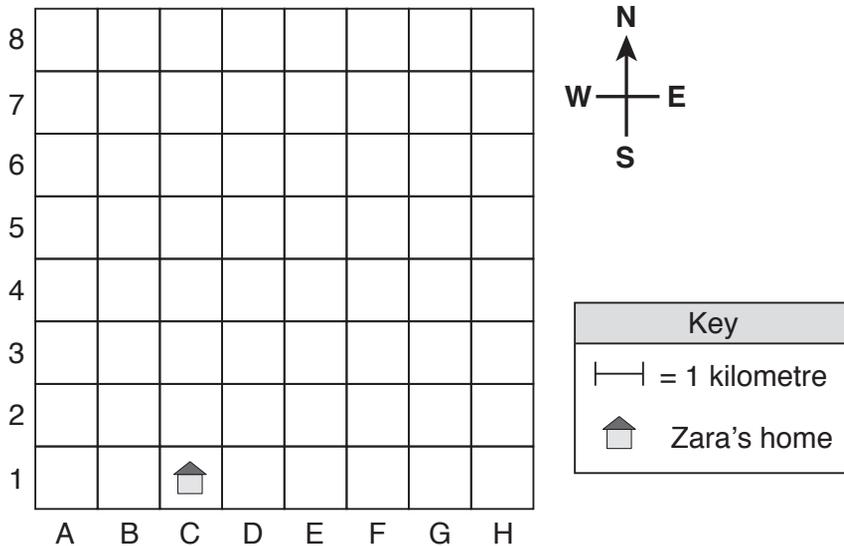
Use 2B or HB  
pencil **only**





1

Zara's home is shown on the map.



Each day Zara rides 4 kilometres east and 2 kilometres north from home to school.

In which cell on the map is Zara's school?

C5

E3

G3

E5

2

Anna opens a savings account. She deposits \$4 in the first week.

She then deposits twice as much money each week as she did the previous week.

The total amount of money in the account is

always odd.

always even.

sometimes odd and sometimes even.

3

Lisa plans to give  $\frac{1}{4}$  of her 20 books to her sister.

How many books will she give her sister?

4

5

8

10

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4

At the zoo Tran saw 8 koalas, 16 kangaroos and 12 emus.

In the tables below, X = 4 animals.

Which table correctly shows the number of animals Tran saw at the zoo?

Animals	Number
Koala	X X
Kangaroo	X X X X
Emu	X X X

Animals	Number
Koala	X X
Kangaroo	X X X
Emu	X X X X

Animals	Number
Koala	X X X X X X X X
Kangaroo	X X X X X X X X X X X X X X X X
Emu	X X X X X X X X X X X X

Animals	Number
Koala	X X
Kangaroo	X X X X
Emu	X X X X

5

Joe measures a distance to be 5 metres and 12 centimetres.

Which of these shows how Joe can write this measurement in metres?

5.012 m

5.12 m

6.12 m

6.2 m

6

A bag contains 15 beads that are either red or yellow.

The probability of randomly removing a red bead is 20%.

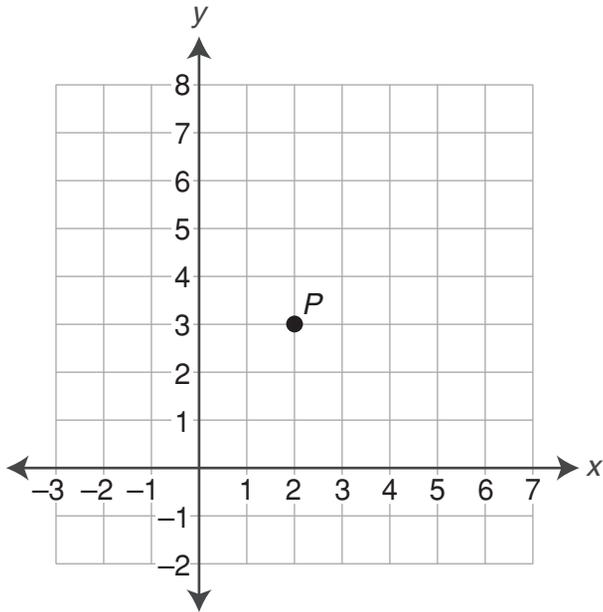
What is the probability of randomly removing a yellow bead?

%



7

Point  $P$  is translated down 4 units.



What are the coordinates of the new position of point  $P$ ?

(2, -1)

(2, 7)

(6, 3)

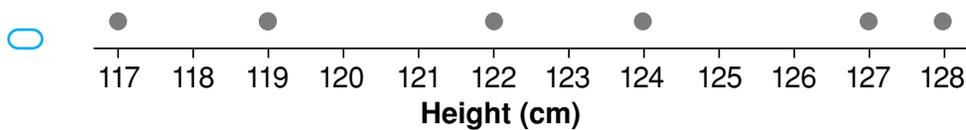
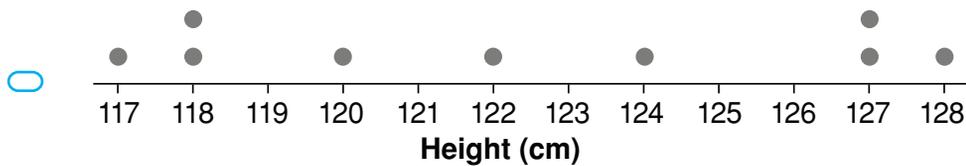
(-2, 3)

8

The heights, in centimetres, of children on the tennis team are as follows:

119, 122, 119, 127, 127, 117, 128, 124, 127

Select the dot plot that correctly displays the data.





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12

The athletics carnival started at 10:30 am and lasted for  $2\frac{1}{4}$  hours.

Rose went straight home after the carnival finished.

She took  $\frac{1}{2}$  an hour to get home.

What time did Rose get home?

12:45 pm

1:00 am

1:00 pm

1:15 am

1:15 pm

13

Ajay paid \$18.60 for a box of 6 high-bounce balls.

What is the cost of one high-bounce ball?

\$

14

William earns money each week for doing jobs.

For each job he earns \$2.

He records the number of jobs he does in one week in a table.

Jobs	Number
Take out the rubbish	
Walk the dog	
Wash dishes	

If William does the same jobs for three weeks, how much money will he earn altogether?

\$13

\$26

\$39

\$78

15

Tom joins a gym that has a monthly fee of \$56.

Members pay an extra \$6 per session if they want to work with a gym trainer.

Which expression represents Tom's monthly gym bill if he works with a trainer for  $x$  sessions during the month?

$6x$

$56x$

$56x + 6$

$56 + 6x$



16

The table shows the fixtures for six football teams on Saturday.

Start time	Teams
9:00	Team A plays Team B
10:00	Team C plays Team D
11:00	Team E plays Team F

If no match ends in a draw, which of the following is possible?

- Teams A and F both win.
- Teams C and D both lose.
- Teams A, D, E and F all win.
- Teams B and C are the only teams that lose.

17

A class had a cake stall.

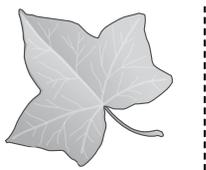
They sold 100 cakes for \$7.50 each.

What is the total amount the class made from the cake stall?

\$

18

Liam had a leaf.



He reflected the leaf to the right across the dotted line.

Then he rotated the leaf 90 degrees clockwise.

Which of these shows the final position of the leaf?





19

Tim wants to buy some clothes.

The table shows the prices of the items he wants to buy.

Type of clothing	Price
Polo shirt	\$97.50
Blue jeans	\$119.95
Socks	\$12.95
Runners	\$142.89

Tim estimates the cost of the clothes within a range.

Which of these gives the correct range for the cost of these clothes?

\$290 – \$320

\$320 – \$350

\$350 – \$380

\$380 – \$410

20

Jane and David had identical chocolate bars.

David ate  $\frac{7}{8}$  of his chocolate bar.

Jane ate more of her chocolate bar than David.

What fraction of her chocolate bar could Jane have eaten?

$\frac{6}{7}$

$\frac{7}{9}$

$\frac{8}{9}$

$\frac{8}{10}$

21

Monti and Tarra buy pencils for school.

Tarra buys 2 times the number of pencils Monti buys plus an additional 4 pencils.

Let  $m$  be the number of pencils Monti buys.

Which expression shows the number of pencils Tarra buys?

$(2 \times m) + 4$

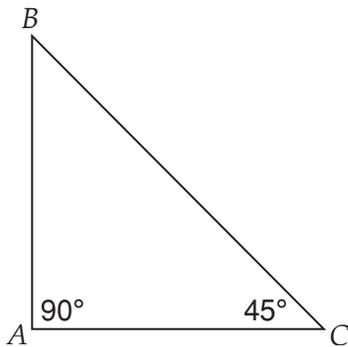
$2 + (4 \times m)$

$(m \div 2) - 4$

$2 - (m \div 4)$



22



Select the statement that is true about triangle  $ABC$ .

- Triangle  $ABC$  is a scalene triangle.
- Triangle  $ABC$  is an isosceles triangle.
- Triangle  $ABC$  is an equilateral triangle.
- Triangle  $ABC$  is an obtuse triangle.

23

Amber is keeping silkworms.

She records the number of leaves they have eaten every five days.

5 days	10 days	15 days	20 days	25 days
5	15	45	135	?

If this pattern continues, how many leaves will the silkworms have eaten in 25 days?

24

Hannah flipped a fair coin 60 times.

She recorded her results in a table.

	Number of times
Heads	24
Tails	36

What is the difference between the expected number of heads and the actual number of heads?



25

Glen has 6 cups of sugar. A biscuit recipe uses  $\frac{3}{4}$  of a cup of sugar for each batch. What is the greatest number of batches Glen can make?

6

$6\frac{3}{4}$

$7\frac{1}{2}$

8

12

26

This table shows the length and width of four rectangles in centimetres.

Rectangle	Length (cm)	Width (cm)
A	10	6
B	11	10
C	16	2
D	20	12

Which rectangle has a perimeter of 32 centimetres?

Rectangle A

Rectangle B

Rectangle C

Rectangle D

27

The regular price of a shirt is \$24.50.

The shirt is on sale for 10% off the regular price.

What is the sale price of the shirt?

\$

28

Paul is playing a 'Guess My Number' game.

He gives these clues about his number.

My number is a square number.  
My number is divisible by 2 and 9.  
My number has 2 digits.

What is Paul's number?

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29

Pears cost \$4 per kilogram.

Ben buys 4.15 kilograms of pears.

How much does Ben pay for the pears?

\$

30

Lucy enlarged her rectangular deck so that the length and width were both tripled.

How many times as large as the area of the original deck is the area of the new deck?

2

3

6

9

31

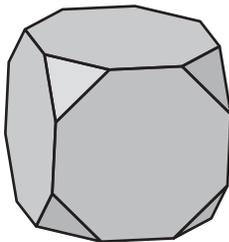
This year, Sam's age is both a prime number and a factor of 57.

In two years' time, Sam's age will be a prime number again.

What is Sam's age this year?

32

This object is made by cutting off each corner of a cube, as shown.



How many edges does this object have?

**STOP – END OF TEST**