

NATIONAL ASSESSMENT PROGRAM  
LITERACY AND NUMERACY

# NUMERACY NON-CALCULATOR



YEAR

7

2011

SESSION 2

0:40

Time available for students to  
complete test: 40 minutes

Use 2B or HB  
pencil **only**



# YEAR 7 NUMERACY (NON-CALCULATOR)



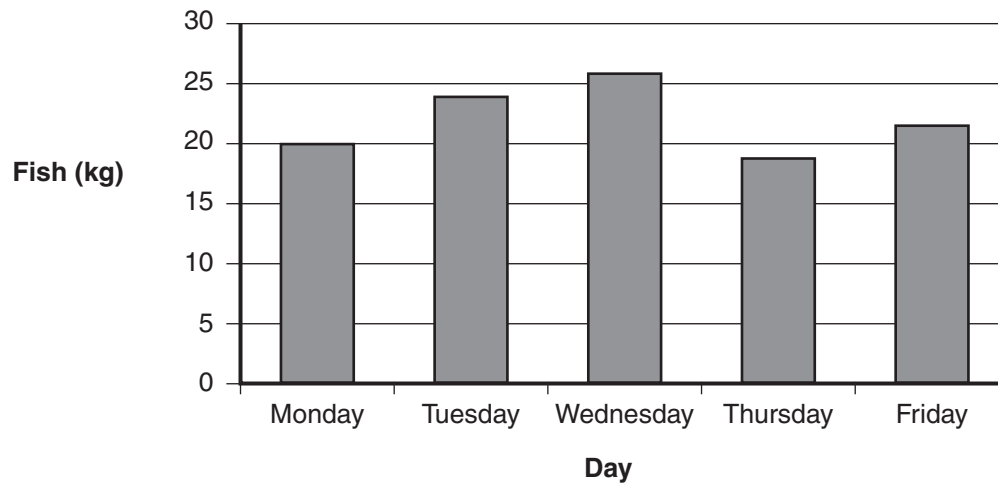
1

This graph shows the mass of fish eaten by the penguins at a zoo.

Shade one bubble.



Fish eaten by penguins



On which day did the penguins eat 24 kg of fish?

Tuesday

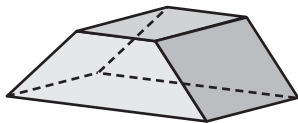
Wednesday

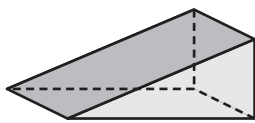
Thursday

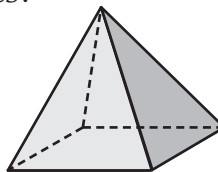
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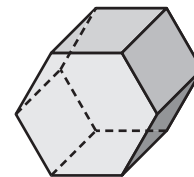
2

Which of these 3D objects has exactly 6 faces?










3

Nick multiplied 38 by 76 on his calculator.

The answer shown was 2888.

Nick then pressed four more buttons.

The answer shown was now 38.

Which four buttons could Nick have pressed to get 38?

$+ 7 6 =$

$- 7 6 =$

$\times 7 6 =$

$\div 7 6 =$



# YEAR 7 NUMERACY (NON-CALCULATOR)



4

The table shows the times of 3 of the first 4 swimmers in a race.

Shade one bubble.

1st place	25.38 seconds
2nd place	25.83 seconds
3rd place	?
4th place	26.29 seconds

The time of the swimmer in 3rd place could be

- 25.78 seconds.
- 25.91 seconds.
- 26.31 seconds.
- 26.92 seconds.

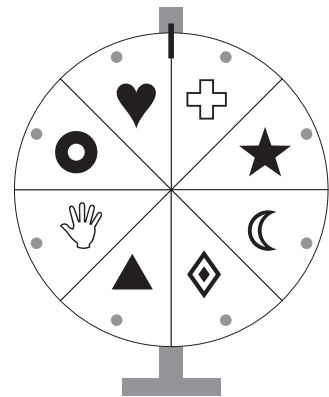
5

This wheel is spun once to decide which player goes first in a game.

Each player has an equal chance.

What is the chance that the wheel stops on the star ★ ?

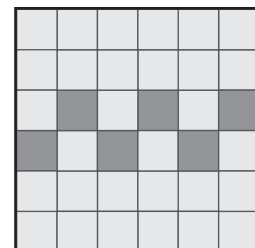
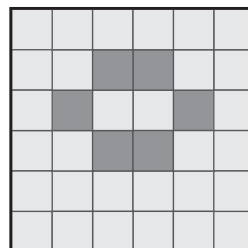
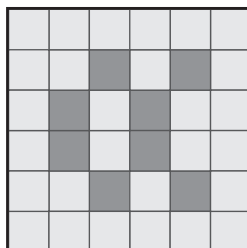
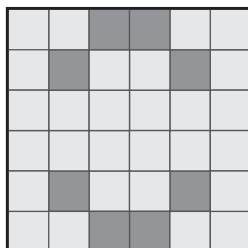
- 7 chances in 8
- 8 chances in 8
- 1 chance in 7
- 1 chance in 8



6

Yasmine tiled the tops of four tables.

Which table top has **two** lines of symmetry?



# YEAR 7 NUMERACY (NON-CALCULATOR)



7

Tim had \$32 to spend while on holiday.  
He spent exactly the same amount each day.  
At the end of the holiday he had no money left.

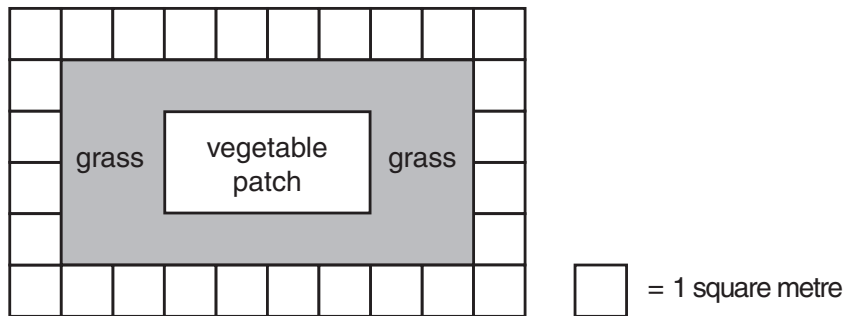
Shade one bubble. 

Which of these could be the amount he spent each day?

- \$6                       \$5                       \$4                       \$3

8

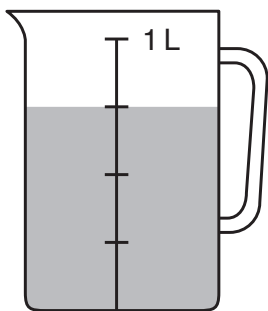
This is a diagram of a garden.



What is the area of the vegetable patch?

- 4 square metres  
 8 square metres  
 16 square metres  
 32 square metres

9



How much **more** water is needed to fill the jug to 1 L?

- 200 mL                       250 mL                       300 mL                       750 mL

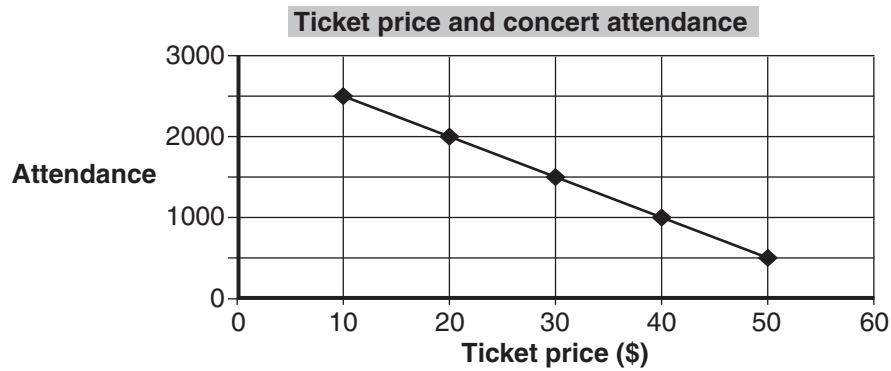
# YEAR 7 NUMERACY (NON-CALCULATOR)



10

Jack drew this graph to show how attendance at concerts is related to ticket price.

Shade one bubble.



Which statement best describes the graph?

- As the ticket price goes up, attendance goes down.
- As the ticket price goes up, attendance goes up.
- As the ticket price goes down, attendance goes down.
- As the ticket price goes down, attendance stays the same.

11

Bruce is cooking dinner.  
The table shows the cooking times for his dinner.

	Cooking time
<b>Chicken</b>	1 hour 40 minutes
<b>Potatoes</b>	20 minutes
<b>Peas</b>	10 minutes

Bruce starts cooking the chicken at 5:10 pm.  
He wants everything to finish cooking at the same time.

At what time should Bruce start cooking the peas?

- 6:20 pm      6:30 pm      6:40 pm      6:50 pm
-

# YEAR 7 NUMERACY (NON-CALCULATOR)



12

At a bakery, buns cost \$0.50 each or 5 for \$2.

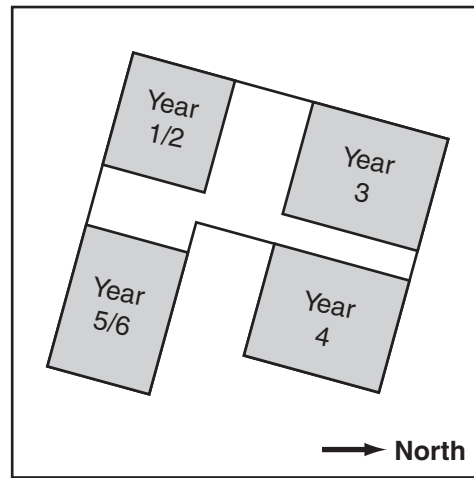
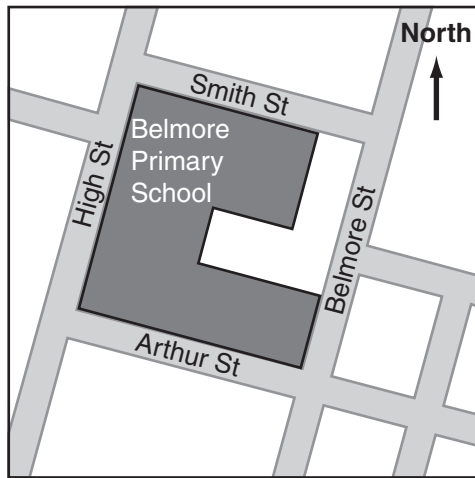
What is the lowest cost of 12 buns?

Shade one bubble.

- \$4.00     
  \$4.50     
  \$5.00     
  \$6.00

13

A school's website shows these two plans of the school.



Which classroom is by the corner of High Street and Smith Street?

- Year 1/2     
  Year 3     
  Year 4     
  Year 5/6

14

Robert recorded this data about some members of his family.

Name	Gender	Height (cm)	Age (years)	Shoe size
Ted	Male	148	10	6
Rania	Female	167	14	9
Luke	Male	175	52	10
Judy	Female	159	54	8 $\frac{1}{2}$

How did Robert order his data?

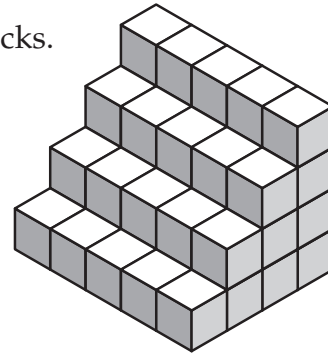
- by gender     
  by height     
  by age     
  by shoe size

# YEAR 7 NUMERACY (NON-CALCULATOR)



15

Clive made this staircase by stacking blocks. There are no gaps between blocks.



Shade one bubble.



How many blocks in the staircase are **not** shown at all?

26

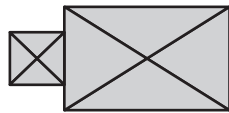
24

15

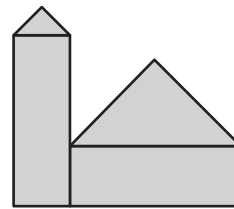
10

16

The top view and front view of a building are shown.

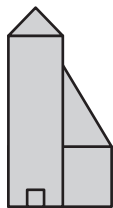


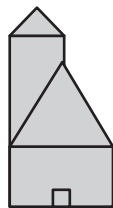
Top view

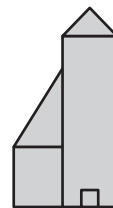


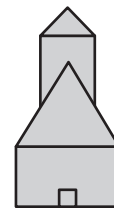
Front view

Which could be the side view of this building?



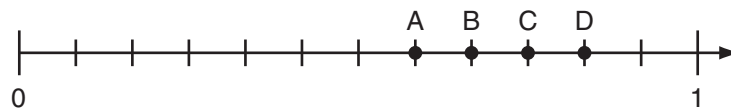







17

Which position is closest to  $\frac{2}{3}$  on this number line?



A

B

C

D

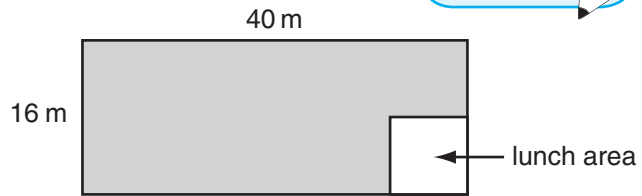
# YEAR 7 NUMERACY (NON-CALCULATOR)



18

This diagram shows a rectangular school yard.  
The shaded area is the playground.  
The lunch area is a square of side length 8 m.

Which of these expressions gives the area of the playground?



Shade one bubble.

$(40 \times 16) - (8 \times 8)$

$(32 \times 8) + (8 \times 8)$

$(40 + 16) - (8 + 8)$

$(40 \times 16) + (8 \times 8)$

19

A gecko is about 8 cm long.  
A frilled-neck lizard is about 6 times as long as a gecko.

The difference between the length of a frilled-neck lizard and of a gecko is about

2 cm

14 cm

40 cm




48 cm

20

This picture shows the prices of some ice-creams at Suzie's Ice-cream Shop.

Write your answer in the box.

### Suzie's Ice-cream Shop

		
\$3.20	\$3.75	\$4.30
1 scoop	2 scoops	3 scoops

Each extra scoop of ice-cream costs the same amount of money.

How much will one ice-cream with 5 scoops cost?

\$



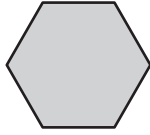
# YEAR 7 NUMERACY (NON-CALCULATOR)



21

This regular hexagon has been made by putting together 3 identical smaller shapes.

Shade one bubble.



Which of these could be that smaller shape?



22

Jade buys a 500 gram bag of beads at a market. Each bead has a mass of 0.48 grams.

Which of these is the best estimate for the number of beads in the 500 gram bag?

100



250



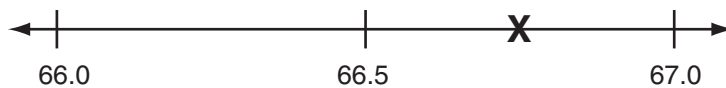
1000



2500



23



Which number is at **X** on this number line?

65.65



66.50



66.55



66.75



24

Lucy's watch works correctly but is not showing the correct time.

At 7:30 am Lucy's watch showed the time as 7:35 am.

Lucy should have been at school by 8:50 am.

When she arrived at school her watch showed the time as 9:10 am.

How many minutes late to school was Lucy?

Write your answer in the box.




minutes

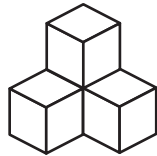
# YEAR 7 NUMERACY (NON-CALCULATOR)



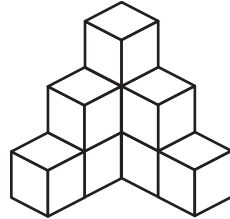
25

Finn joins cubes to make these models that look like steps.

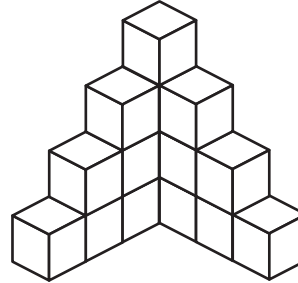
Write your answer in the box.



2-step model  
(4 cubes)



3-step model  
(9 cubes)



4-step model  
(16 cubes)

How many cubes would Finn need for a **6-step** model?

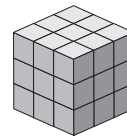
26

Kim made this large cube using 27 small cubes.

The large cube has 6 faces.

Kim removed some of the small cubes.

The remaining object had 12 faces.



What was the **smallest** number of small cubes Kim could have removed?

27

$23 \times (98 - 17)$  has the same value as

- $(23 \times 98) - 17$
- $(23 \times 98) - (17 \times 98)$
- $23 \times (98 - 23 \times 17)$
- $(23 \times 98) - (23 \times 17)$

Shade one bubble.

28

Which of these fractions has the greatest value?

$$\frac{3}{4}$$

$$\frac{19}{24}$$

$$\frac{5}{8}$$

$$\frac{13}{16}$$

## YEAR 7 NUMERACY (NON-CALCULATOR)



29

Three friends were making cupcakes for a party.  
Josh made 10 more cakes than Alice.  
Alice made 8 more cakes than Tom.  
In total they made 62 cakes.

How many cakes did **Tom** make?

Write your answer  
in the box.



30

The sum of the opposite faces of a standard six-sided dice is always 7.  
Hannah rolls three dice.  
The sum of the top faces is 11.

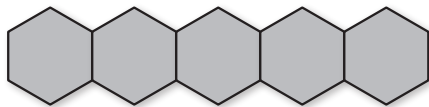
What is the sum of the three opposite faces?

31

$$4.95 \div 4.5 =$$

32

Sanjay has some tiles that are in the shape of regular hexagons.  
The perimeter of each tile is 12 cm.  
He arranges them in a row with pairs of edges touching as shown.



He keeps adding tiles in the same way until he has a row with  
a perimeter of 100 cm.

How many tiles are in Sanjay's row?

### STOP – END OF TEST