




**GRADE 6**

**2016**

Student Name			
Gender		Date of Birth	
Subject	<b>MATHEMATICS</b>	Student ID	<b>N0004</b>
School Name	<b>TOWHEED IRANIAN SCHOOL</b>		
Grade	<b>06</b>	Section	
 168-M-N0004-06-1 2061			

## Mathematics

### TEST INSTRUCTIONS

#### FILL IN YOUR DETAILS

Turn to your ANSWER SHEET and fill in your name, school, grade, section, today's date, your date of birth and gender.

#### ANSWERING QUESTIONS

Go to the MATHEMATICS ANSWER SHEET.

This test has **40 QUESTIONS**. Each question has four possible options.

Choose the **BEST** answer from the four options, **A, B, C** or **D**.

FILL in **ONE** circle on your answer sheet with a pencil.

If you make a mistake, erase the pencil mark and fill in a different circle.

You must colour the entire circle as shown below:

**Correct response**



**Incorrect responses**



Line



Very light pencil



Pen



Colored pencil

Marks are NOT deducted for incorrect answers.

**ALL ANSWERS SHOULD BE MARKED ON YOUR ANSWER SHEET ONLY.**

#### EQUIPMENT ALLOWED IN THIS TEST

You may use a 2B or B pencil for this test. You may NOT use a calculator for this test.

#### TIME ALLOWED FOR TEST

The time allowed to complete this test is **60 minutes**.

- 1 In 5 steps a boy moved a total distance of 280 cm.  
What is the boy's average (mean) step length?

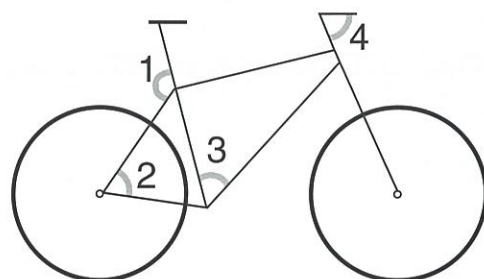
- A 28 cm
- B 56 cm
- C 60 cm
- D 270 cm



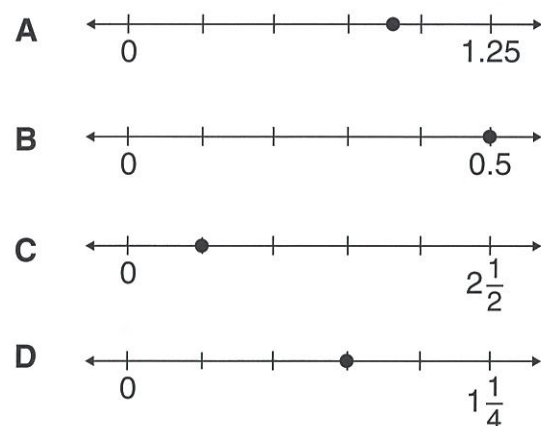
- 2 Four angles are marked on the bicycle.

Which angle is the largest?

- A angle 1
- B angle 2
- C angle 3
- D angle 4



- 3 On which number line does the dot show the largest number?



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4  $\frac{3}{4} + \frac{1}{8} =$

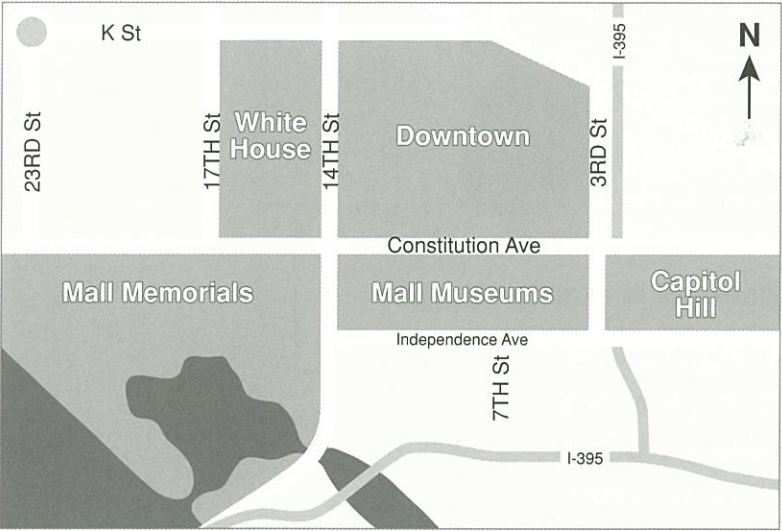
$\frac{4}{12}$   
A

$\frac{4}{8}$   
B

$\frac{7}{8}$   
C

$\frac{7}{4}$   
D

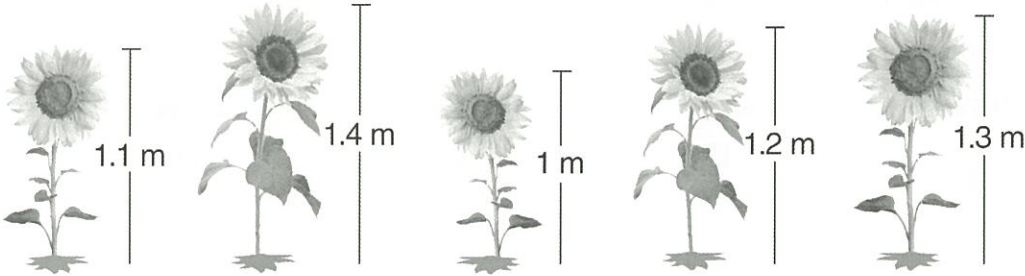
40 The map shows some important landmarks in Washington DC.



Which landmark is south of Constitution Avenue and west of 3RD St?

- A White House
- B Downtown
- C Capitol Hill
- D Mall Museums

5 The average (mean) height of these flowers is 1.2 m.



The shortest flower is removed.  
What is the effect on the average height of the remaining flowers?

- A the average height increases
- B the average height stays the same as before
- C the average height decreases
- D the average height cannot be predicted

6 This table shows the cost of hiring different vehicles.

Vehicle	Maximum number of people allowed	\$ per day
Small	2	50
Medium	5	60
Large	7	80

What is the cost of hiring a vehicle for 6 people for 3 days?

- A \$18
- B \$80
- C \$180
- D \$240

7 The cost of a horse is one-third of the cost of a cow.  
Which one of the following statements is true?

- A A horse costs three times as much as a cow.
- B A horse costs the same as three cows.
- C A cow costs four times as much as a horse.
- D A cow costs the same as three horses.



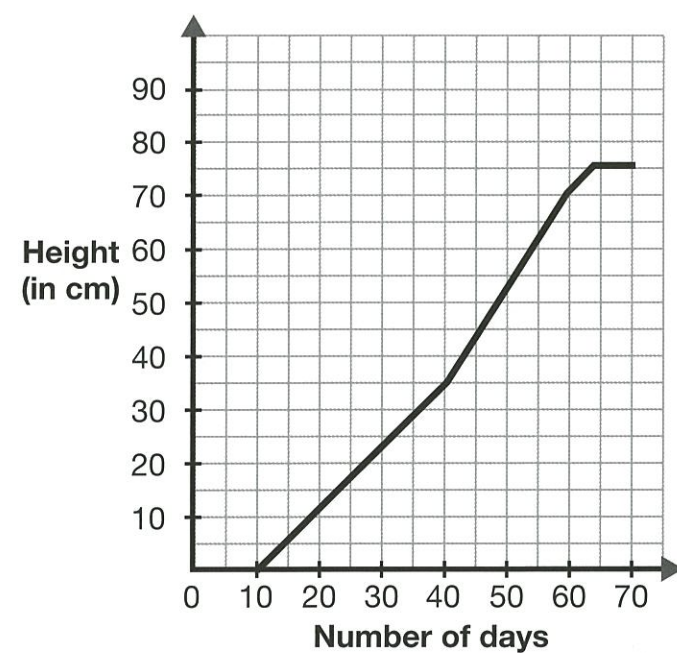
8 A newspaper sold 46 453 copies today.  
Yesterday it sold 42 879 copies.  
How many more copies were sold today?

- 3574  
A
- 4426  
B
- 4574  
C
- 4684  
D

9 What is the next number in the pattern below?  
0.7, 0.07, 0.007,

- A 0.00007
- B 0.0007
- C 0.007
- D 7

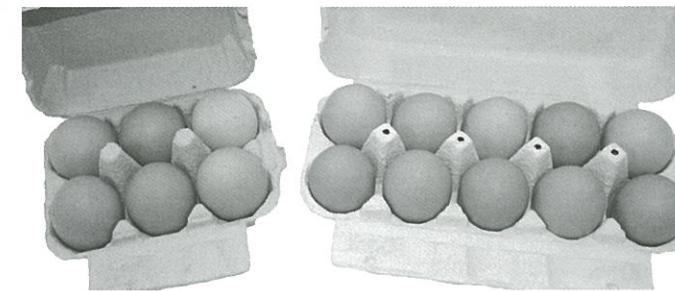
10 A student planted a seed and recorded how the plant grew.  
The graph shows the height of the plant over the next 70 days.



What was the height of the plant after 40 days?

- 35 cm  
A
- 45 cm  
B
- 75 cm  
C
- 90 cm  
D

37 A small carton holds 6 eggs. A large carton holds 10 eggs.



Which combination of cartons holds exactly 42 eggs?

- A 1 small carton and 4 large cartons
- B 2 small cartons and 3 large cartons
- C 3 small cartons and 2 large cartons
- D 4 small cartons and 1 large carton

38 A set of shuffled cards contains:

- 4 black cards
- 5 blue cards
- 6 red cards
- 5 yellow cards.

One card is selected without looking.

What is the chance it will be a black card?

- $\frac{1}{2}$   
A
- $\frac{1}{4}$   
B
- $\frac{1}{5}$   
C
- $\frac{1}{6}$   
D

39 A boy thinks of a number.  
He doubles it and then adds 12.  
The result is 38.

What number did the boy think of?

- 7  
A
- 13  
B
- 52  
C
- 88  
D

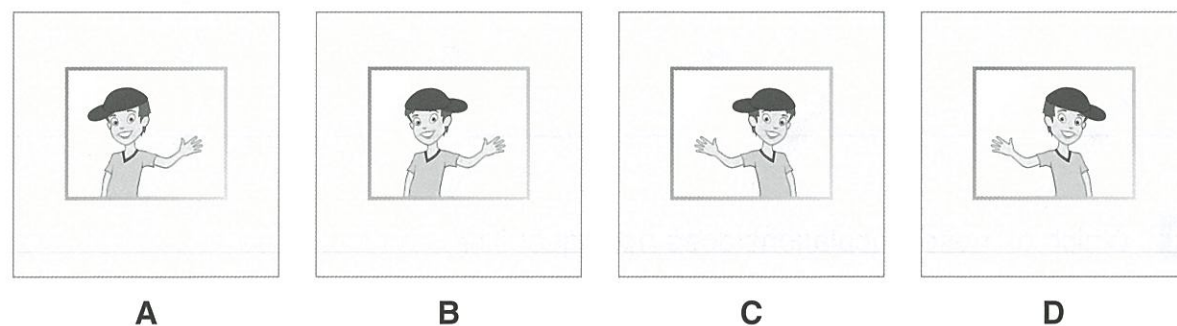
- 35 Which calculator shows seventy thousand and seventy?

- A
- B
- C
- D

- 36 A boy is outside a shop. The shopkeeper is inside the shop. The boy sees the shopkeeper and waves at her.



What does the shopkeeper see?



- 11 A scientist measures the temperature at different distances below the Earth's surface. This table shows her results.

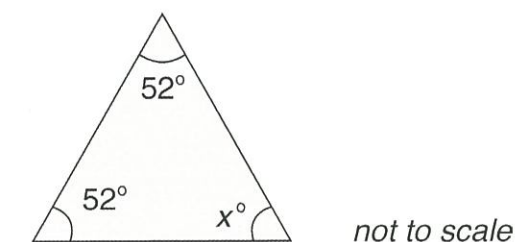
Distance below the Earth's surface (metres)	Temperature ( $^{\circ}\text{C}$ )
0 m	20 $^{\circ}\text{C}$
30 m	21 $^{\circ}\text{C}$
60 m	22 $^{\circ}\text{C}$
90 m	23 $^{\circ}\text{C}$
120 m	24 $^{\circ}\text{C}$

What is the temperature at 75 m below the Earth's surface?

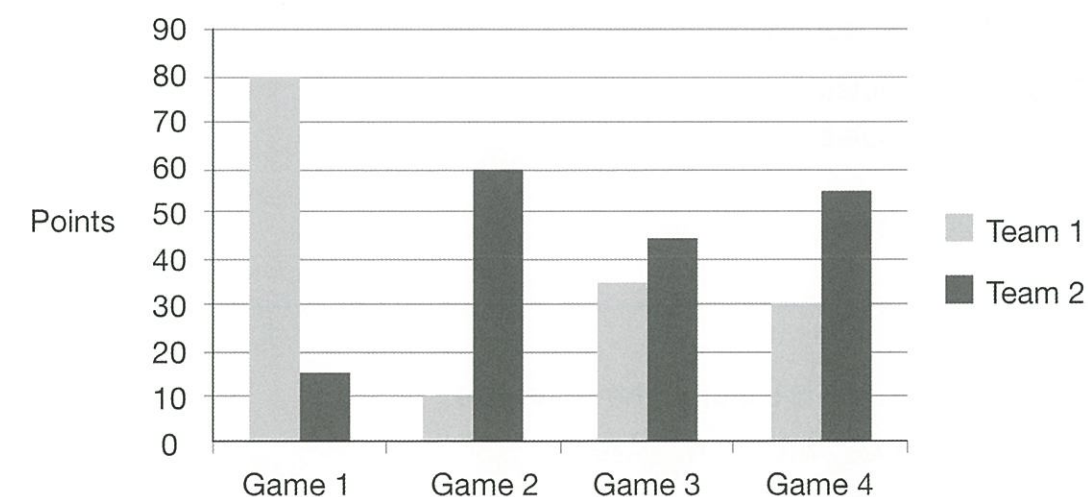
- 20  $^{\circ}\text{C}$       22.2  $^{\circ}\text{C}$       22.5  $^{\circ}\text{C}$       23  $^{\circ}\text{C}$   
**A**                      **B**                      **C**                      **D**

- 12 What is the value of angle  $x$ ?

- A 38  
 B 52  
 C 76  
 D 86



- 13 Two basketball teams played four games against each other. This graph shows the points scored by the two teams.



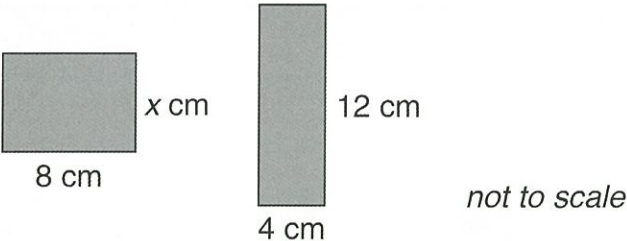
What was the greatest **difference** in points between the teams in a game?

- 10                      50                      65                      80  
**A**                      **B**                      **C**                      **D**



- 14 A coin weighs 5 grams.  
It is made of 75% copper and 25% nickel.  
How many grams of copper are in the coin?
- A 0.75 grams  
B 1.25 grams  
C 3.75 grams  
D 4.25 grams

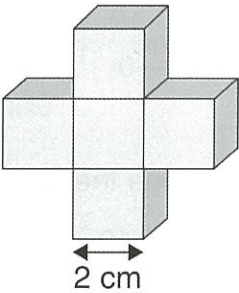
- 15 These rectangles have the same area.



- What is the value of  $x$ ?
- 6                      8                      10                      24  
A                      B                      C                      D

- 16 A train departs at 08:30 and reaches its destination at 17:10.  
How long is the train journey?
- A 5 hours 20 minutes  
B 8 hours 40 minutes  
C 9 hours  
D 9 hours 20 minutes

- 17 This object is made from 5 cubes of the same size.  
What is the total surface area of the object?
- A 40 square centimetres  
B 88 square centimetres  
C 100 square centimetres  
D 120 square centimetres



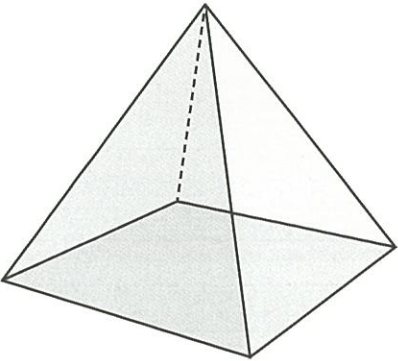
- 32 A group of 30 people were surveyed about whether they like fruit and vegetables.  
The table below shows the results.

	Like vegetables	Do not like vegetables
Like fruit	8	6
Do not like fruit	12	4

How many people like fruit but do not like vegetables?

- 4                      6                      8                      12  
A                      B                      C                      D

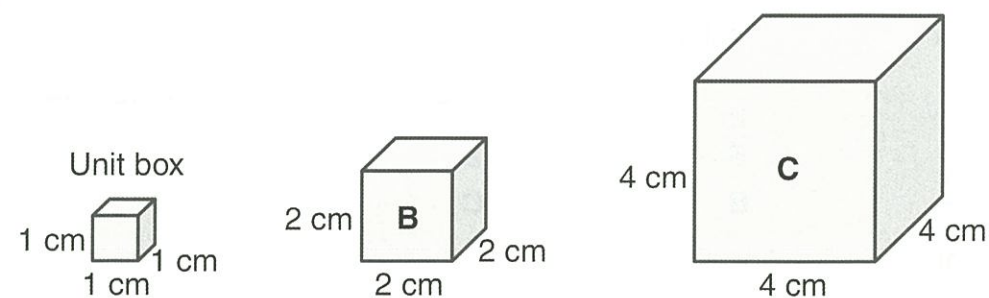
- 33 How many ways are there of cutting this square-based pyramid into two identical parts?



- 1                      2                      4                      5  
A                      B                      C                      D

- 34 Which of these calculations does **not** equal 71?
- A  $6 + 7 \times (8 + 9) =$   
B  $6 + (7 \times 8) + 9 =$   
C  $6 + 7 \times 8 + 9 =$   
D  $(6 + 7 \times 8) + 9 =$

- 28 Box B can hold eight unit boxes.



How many unit boxes can box C hold?

- A 4      B 16      C 32      D 64

- 29 7.7, 7.5, 7.3, 7.1,

- A 6.7  
B 6.9  
C 7.0  
D 7.2

- 30 What is  $1003 - 17$ ?

- A 986  
B 987  
C 994  
D 996

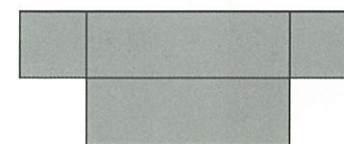
- 31



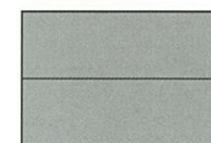
Which measurement is shown by the arrow?

- A 8.07 cm      B 8.7 cm      C 87 cm      D 870 cm

- 18 The net of a cuboid (rectangular prism) is not complete.



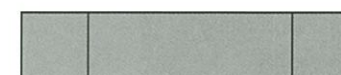
Which shape would complete the net?



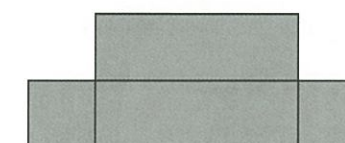
A



B



C



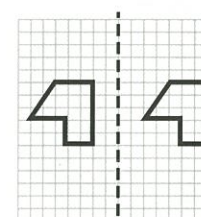
D

- 19 A machine can pump 15 litres of water in one minute.

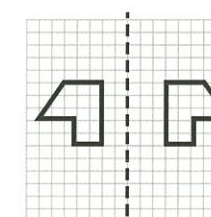
How long does it take to pump 900 litres of water?

- A 4 minutes  
B 6 minutes  
C 15 minutes  
D 60 minutes

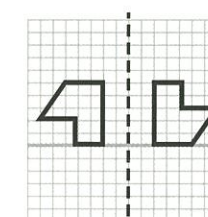
- 20 Which picture shows the reflection of the shapes in the mirror line?



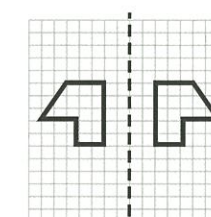
A



B



C

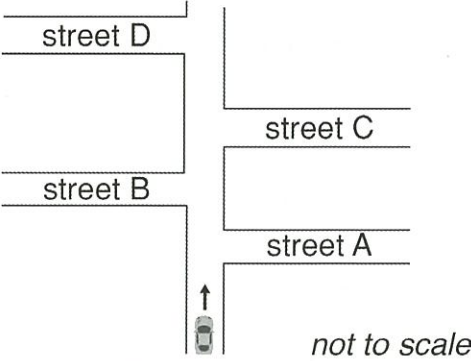


D



21 The car turns into the second street on the right.  
On which street will the car be after the turn?

- A street A
- B street B
- C street C
- D street D



22 Teachers share 250 books and 350 pencils between the students in Year 6.  
Each student gets the same number of books.  
Each student gets the same number of pencils.  
What can be the maximum number of students in Year 6?

- |          |          |          |          |
|----------|----------|----------|----------|
| 10       | 25       | 35       | 50       |
| <b>A</b> | <b>B</b> | <b>C</b> | <b>D</b> |

23 The highest temperature on the surface of the Moon is 100 °C and the lowest temperature is -173 °C.  
What is the difference between these two temperatures?

- |          |          |          |          |
|----------|----------|----------|----------|
| 73 °C    | 127 °C   | 173 °C   | 273 °C   |
| <b>A</b> | <b>B</b> | <b>C</b> | <b>D</b> |

24 This scale shows weight in kilograms and grams.  
How heavy is the bag of onions?

- A 3 kilograms and 6 grams
- B 3 kilograms and 60 grams
- C 3 kilograms and 600 grams
- D 4 kilograms and 40 grams



25 There is a 60% chance of rain today.  
What is another way of expressing a 60% chance?

- |               |               |               |               |
|---------------|---------------|---------------|---------------|
| $\frac{1}{6}$ | $\frac{2}{5}$ | $\frac{3}{2}$ | $\frac{3}{5}$ |
| <b>A</b>      | <b>B</b>      | <b>C</b>      | <b>D</b>      |

26 A bag contains 1.025 kilograms of onions, and 1.285 kilograms of potatoes.  
What is the total mass of the vegetables?

- |          |          |          |          |
|----------|----------|----------|----------|
| 2.210 kg | 2.031 kg | 2.310 kg | 2.535 kg |
| <b>A</b> | <b>B</b> | <b>C</b> | <b>D</b> |

27 This is a timetable for a school holiday programme.

Time	Activity
9:30 am – 10:00 am	Quiet reading
10:00 am – 10:15 am	Morning snack
10:15 am – 11:00 am	Painting
11:00 am – 11:45 am	Creative writing
11:45 am – 1:00 pm	Lunch
1:00 pm – 2:00 pm	Ball sports
2:00 pm – 3:00 pm	Free time

What activity is happening at 10:45 am?

- A Morning snack
- B Painting
- C Creative writing
- D Lunch