

**END OF PRIMARY BENCHMARK**

**2017**

**MATHEMATICS  
WRITTEN PAPER**

**80 marks**

**1 hour 30 minutes**

1. Work out.

a) $325 + 75 =$ _____  <input type="text"/>	b) $3258 - 137 =$ _____  <input type="text"/>
c) $23 \times 40 =$ _____  <input type="text"/>	d) $414 \div 18 =$ _____  <input type="text"/>

(4 marks)

2. Continue these sequences.

a) 1, 3, , , 9, 11,

b) 5, 5·25, , , , 6·25, 6·5

c) 1, 2, 4, 8, 16, , , , 256, 512

d) 1, 3, 6, 10, 15, , , , 45, 55

(4 marks)

3. There are **six numbers** below.

Write them in the **correct place** on the Carroll diagram.

**12      20      43      48      50      57**

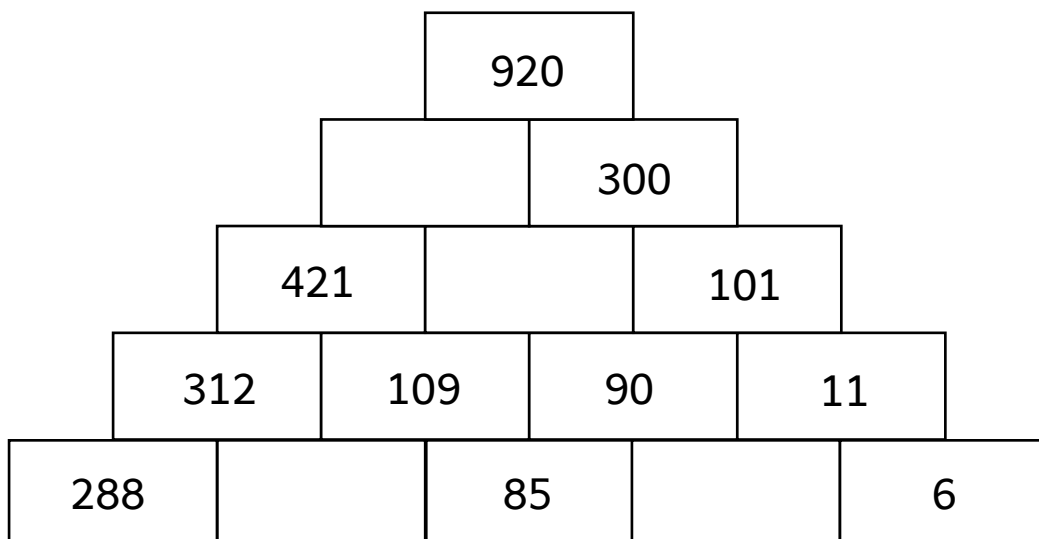
	<b>divisible by 3</b>	<b>not divisible by 3</b>
<b>a multiple of 4</b>		
<b>not a multiple of 4</b>		

(4 marks)

4. The number pyramid below is incomplete.

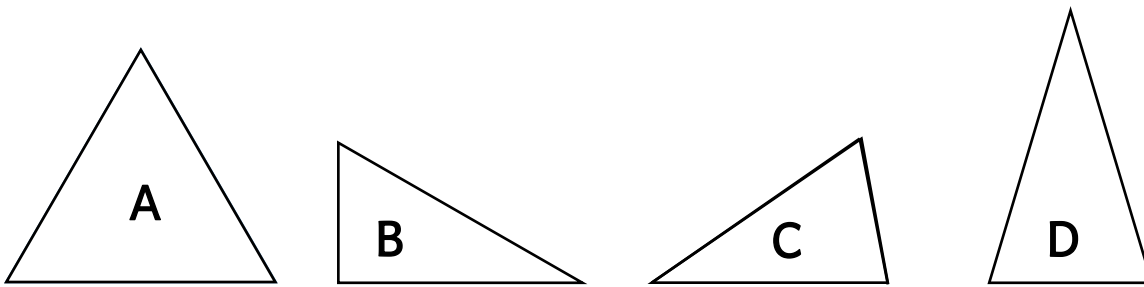
Complete the number pyramid.

**Hint:** The number in each rectangle is the sum of the two numbers in the rectangles below it.



(4 marks)

5. Look at these triangles.



a) Which triangle:

i) has **1 right angle**? \_\_\_\_\_

ii) is an **equilateral triangle**? \_\_\_\_\_

iii) has **only 1 line of symmetry**? \_\_\_\_\_

b) Tick (✓) the correct answer.

**Triangle C is:**

scalene

equilateral

isosceles

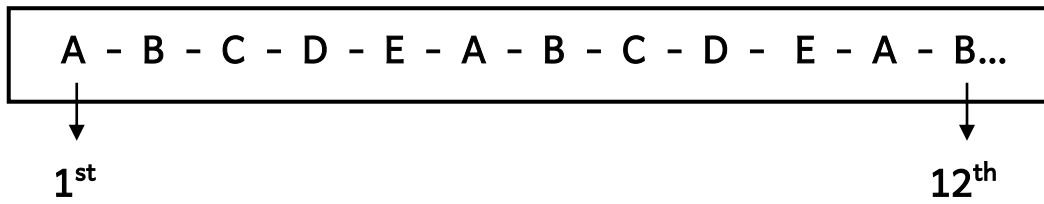
right-angled

c) Which **triangle** can be used **twice** to make a **rectangle**?

triangle

(5 marks)

6. Peter uses five letters A, B, C, D and E to make a pattern. Below are the first 12 letters in the pattern.



a) Which **letter** is in the **17<sup>th</sup>** position?

b) In which **position** is the **4<sup>th</sup>** letter A?

c) Which **letter** is in the **99<sup>th</sup>** position?

(5 marks)

7. Put in the correct sign **<** , **>** or **=**

a)  $\frac{3}{4}$   0.75

d) 20%  0.2

b)  $1\frac{4}{7}$    $\frac{14}{7}$

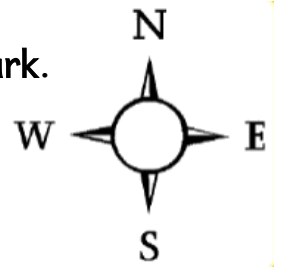
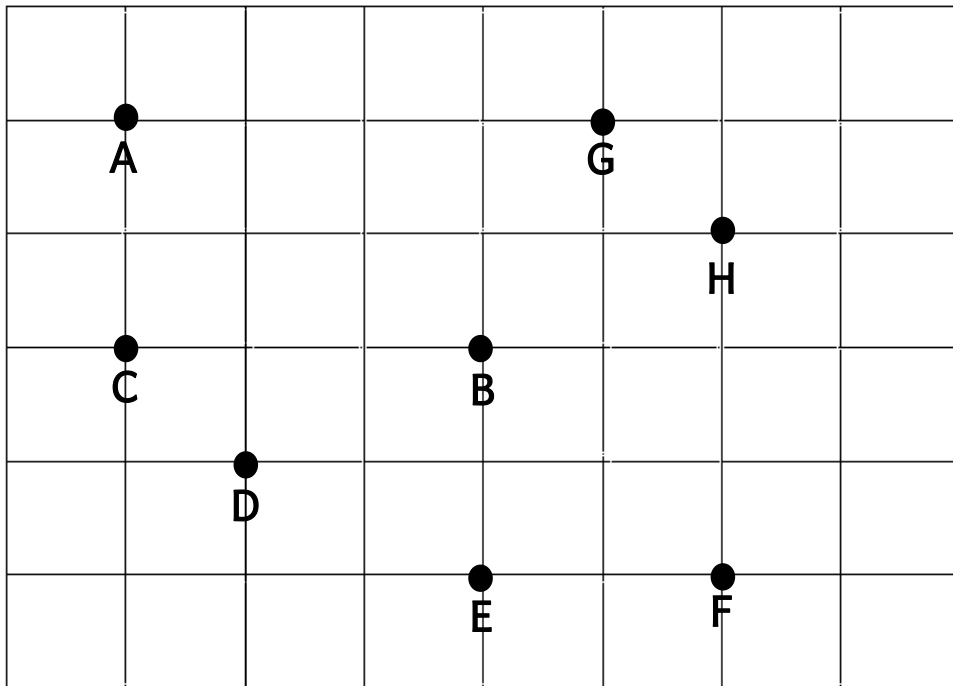
e)  $\frac{6}{8}$   75%

c)  $\frac{3}{5}$   6%

(5 marks)

8. Look at the map.

A, B, C, D, E, F, G and H are different rides at the Fun Park.



a) Fill in with **directions**.

F is  of H.

b) Fill in with A, B, C, D, E, F, G or H.

i)  is South East of B.

ii)  is West of .

c) Andrea is on ride G.

She turns  $225^\circ$  clockwise to look at ride H.

Which ride was she looking at before she made the turn?

(5 marks)

9a) Look at these scales.

On the scales there is a weight of 750 g and five bags of equal mass (weight).



Work out the mass of 1 bag.

Give your answer in grams.

Show your working here.

grams

9b) Tick (✓) the best estimate for the mass of:

i) 6 apples



0.06 kg

1 kg

7.5 kg

65 g

ii) a 10 year old child

3 kg

30 kg

850 kg

2500 g



(5 marks)

10. Look at the prices of these items.



book  
€12.50



bag  
€26.25



pencil case  
€8.75



lunch box  
€6.25

a) The **bag** costs **3 times more** than the \_\_\_\_\_.

b) I buy **two** items. I spend **€32.50**.  
The first item I buy is the **bag**. What is the **other** item?

Show your working here.

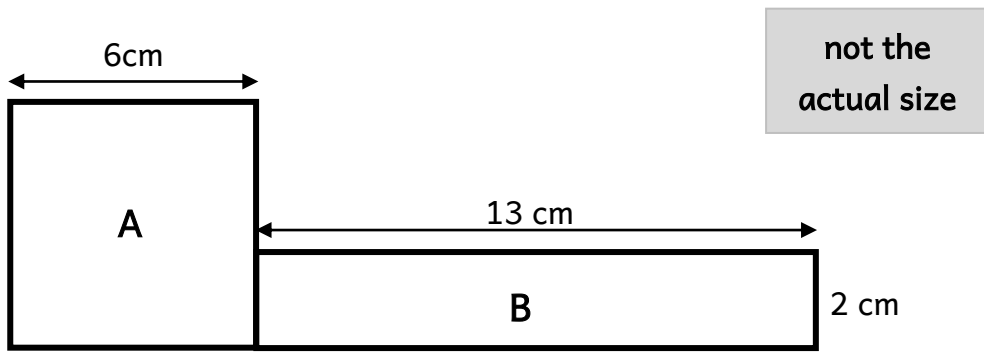
c) How much do **14 pencil cases** cost **altogether**?

Show your working here.

(5 marks)



11a) Peter joins **square A** and **rectangle B** to form the new shape below.



i) Work out the **total perimeter** of the shape above.

Show your working here.

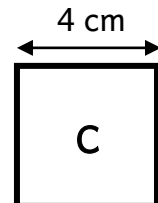
cm

ii) Work out the **area** of the shape above.

Show your working here.

cm<sup>2</sup>

b) Now, Peter adds **square C** to the shape above.  
Work out the **new total area**.



Show your working here.

cm<sup>2</sup>

(5 marks)

12. Five students get the following marks in an English test at school.



Daniel	Sara	Manwel	Robert	Pamela
85	60	88	75	67

a) Work out the **mean** mark for the English test for these five students.

Show your working here.

b) The table below shows the marks the same students get in a second English test.

Some marks are missing.

- In the **second** test, **Daniel's** mark decreases by **12**.
- The **new mean** mark is **80**.

**Complete** the following table to show the **new marks**.

Daniel	Sara	Manwel	Robert	Pamela
	78		82	70

Show your working here.

(5 marks)

13a) This diagram shows how Paul spends a full day during the week.  
He spends **one third of the day sleeping**.

sleeping $\frac{1}{3}$	school, homework and reading	sports
		travelling
		personal care and free time

i) How many **hours** does Paul spend **sleeping**?

hours

ii) How many **minutes** does Paul spend doing **sports**?

minutes

iii) Tick (✓) the correct answer.

Paul spends **exactly 240 minutes**:

sleeping     
  on personal care and free time     
  at school

b) Paul has a swimming lesson on Saturdays.

It starts at **09:15** and lasts  **$1\frac{1}{4}$  hours**.

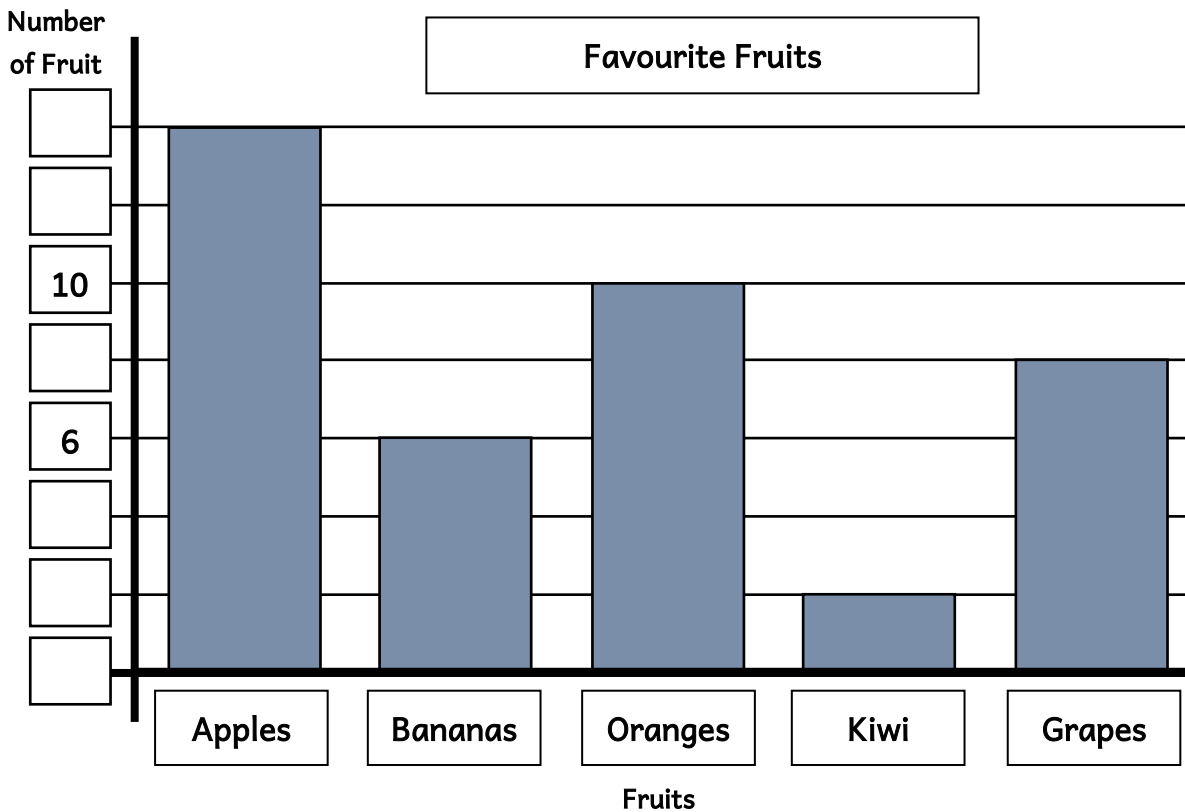
At what time does the swimming lesson **finish**?

**Show your working here.**

:

(6 marks)

14. The bar graph below shows the favourite fruits of 40 children.



a) Fill in all the missing information about the number of fruit on the graph.

b) More children prefer oranges to kiwi.  
Work out the difference.

c) i) Express the number of children who prefer bananas as a fraction of the total number of children.  
Give your answer in its lowest terms.

ii) What percentage of the children prefer bananas?

Show your working here.

(6 marks)

15a) The table below shows the amount of water a person should drink every day according to their mass (weight).

Mass (in kg)	Water (in litres)
45	1.9
50	2.1
55	2.3
60	2.5
65	2.7
70	2.9
75	3.1

- i) Claude weighs **85 kg**.  
According to the table above, how many **litres** of water should he drink?

litres

- ii) Julia weighs **60 kg**.  
How many **200 ml** glasses of water does she need to drink every day?  
Tick (✓) the **best estimate**.



5 glasses       15 glasses       25 glasses


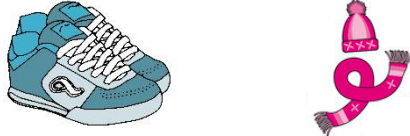

- b) At a Sports Day, there are **300 children**.  
They drink **one 500 ml** bottle of water each.  
How many **litres** of water do they drink altogether?

Show your working here.

litres

(6 marks)

16. Clyde, Petra and Maria buy some items from the shop Kids' Accessories.

Clyde buys <b>2 pairs of shoes and 1 bag</b>		Clyde spends <b>€50</b>
Petra buys <b>1 pair of shoes and 1 winter set</b>		Petra spends <b>€22.90</b>
Maria buys <b>1 bag and 1 winter set</b>		Maria spends <b>€27.90</b>

a) What is the **total cost** of **1 pair of shoes, 1 bag and 2 winter sets**?

Show your working here.

€

b) What is the **cost** of **1 pair of shoes**?

Show your working here.

€

(6 marks)

**END OF PAPER**