END OF PRIMARY BENCHMARK

2014

MATHEMATICS

WRITTEN PAPER

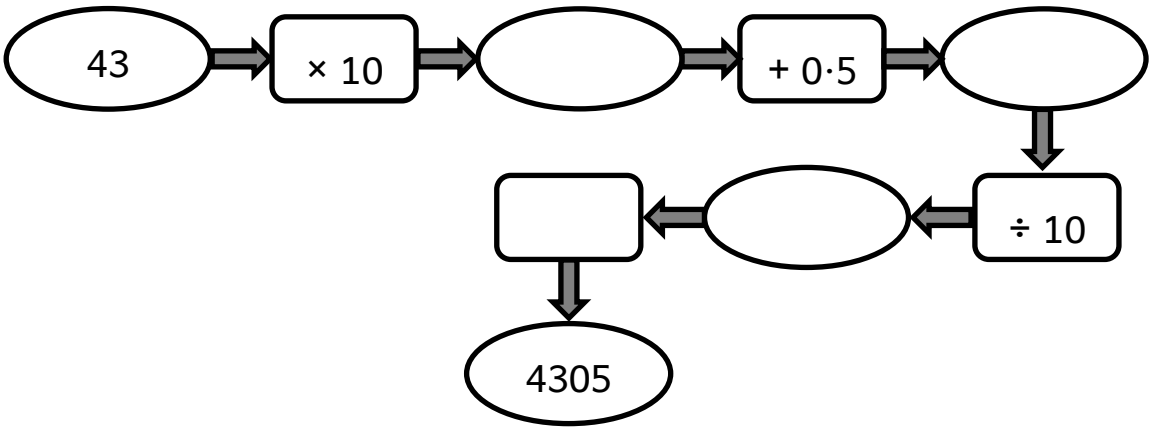
80 marks

1 hour 30 minutes

1. **Work out:**

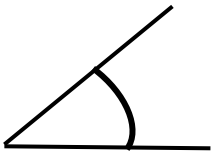
a. 136 + 864 = _____ _____	b. 2002 − _____ = 99 _____
c. 12 × 12 = _____ _____	d. 200 ÷ 40 = _____ _____

2. **Complete:**



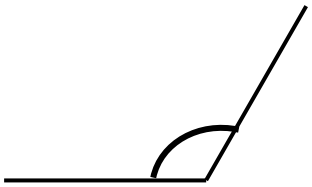
3a. **Tick** (✓) the correct name for **each** of the **marked angles** below.

i)



- acute angle ☐
- right angle ☐
- obtuse angle ☐

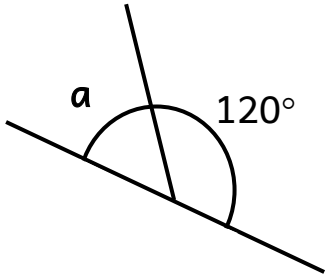
ii)



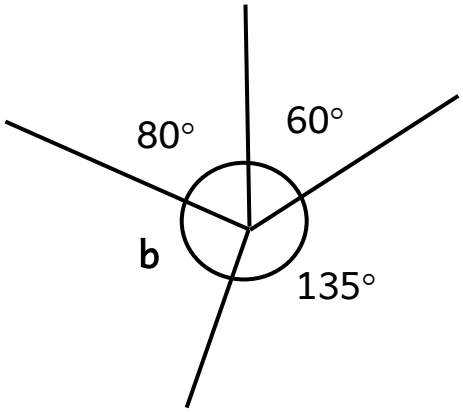
- acute angle ☐
- right angle ☐
- obtuse angle ☐

b. **Work out** the size of angle **a** and angle **b** in the diagrams below.
Do not measure.

i)



ii)



angle **a** = ☐ °

angle **b** = ☐ °

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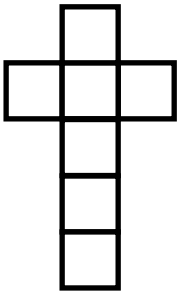
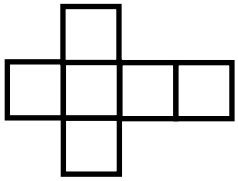
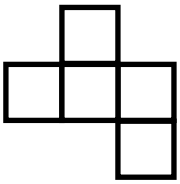
4. Below there are four nets of shapes.
Tick (✓) the nets which form a **cube**.
There is more than one answer.



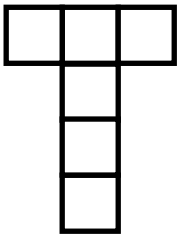
Net A ☐



Net B ☐



Net C ☐

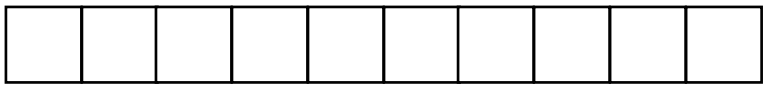


Net D ☐

5a. **Fill in** correctly.

60% = $\frac{\square}{100}$ = $\frac{\square}{10}$ = $\frac{3}{\square}$ = ____.____

b. **Shade 60%** of the grid below.



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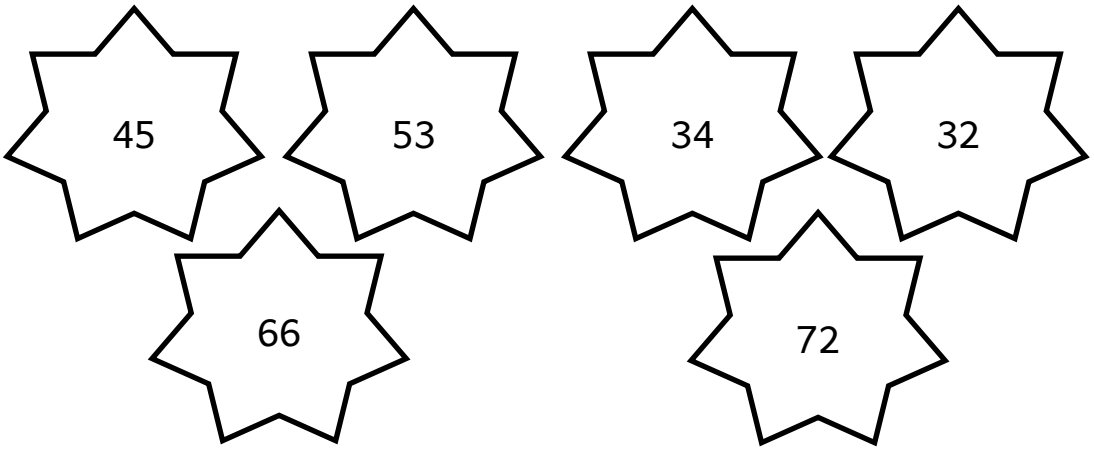
6. Look at the numbers below.
   Use each of these numbers **once** to fill in correctly.



□ is a **common multiple** of 9 and 8

□ + □ = 100

□ + □ − □ = 66

7. Use the calculation below to work out the missing numbers.

$2{\cdot}3 \times 5 = 11{\cdot}5$

a. $11{\cdot}5 \div 5 =$ ☐

b. $23 \times 5 =$ ☐

c. $2{\cdot}3 \times 50 =$ ☐

d. $0{\cdot}23 \times 5 =$ ☐

e. $2{\cdot}3 \times$ ☐ $= 13{\cdot}8$

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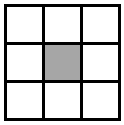
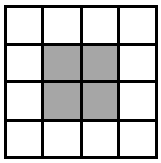
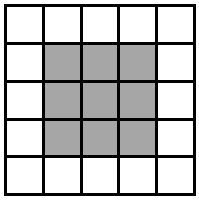
8. The shapes below are made up of **white tiles** and **shaded tiles.**



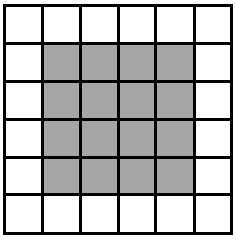
Shape 1



Shape 2



Shape 3



Shape 4

a. Complete the following table.

Shape number	1	2	3	4	5	9
Number of white tiles	8	12				
Number of shaded tiles	1	4				

b. Which **shape number** will have 48 **white tiles**? **shape number** _____

9a. You have these four cards.

Use **two** of them to complete the statements below.

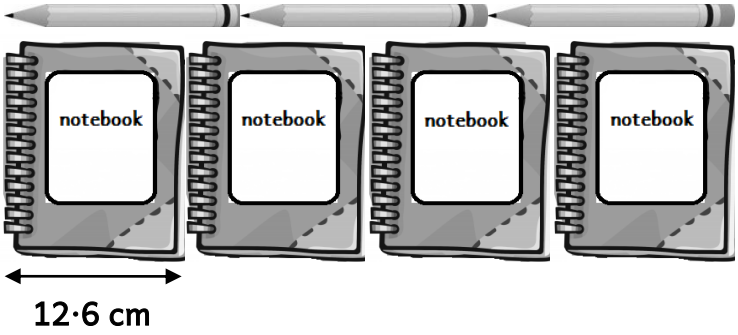
1·01 m	**10·01 m**	**1001 cm**	**1001 m**

i) 101 cm is equal to [_____] .

ii) [_____] divided by 100 is equal to 10·01 m.

b. **Three pencils** have the **same** length as the width of **four notebooks**.

Each notebook is **12·6 cm** wide.



i) Work out, **in cm**, the total length of the **three pencils**.

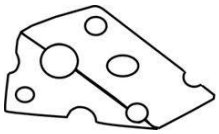
_____ **cm**

ii) Work out, **in mm**, the length of **one pencil**.

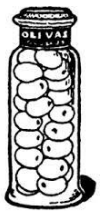
_____ **mm**

10. The following are the prices of items at a supermarket.

ham
€1·82 for 100 g



cheese
€1·64 for 100 g



olives
82 cent for 100 g

milk
47 cent each carton

a. Alex buys 200 g of ham and 150 g of cheese.
What is the **total cost** of the **ham** and **cheese** that Alex buys?

€_____

b. He also buys some olives for **€2·46**.
How many **grams** of **olives** does he buy?

_____ **grams**

c. Alex pays for the ham, cheese and olives with a **€10** note.
He then remembers that he needs to buy milk.
How many **cartons of milk** can he buy **with the change received**?

_____ **cartons**

11. There are **1250 students** in a school.
During the students' council elections they vote as follows:

- **10%** vote for **Tom**
- $\frac{2}{5}$ vote for **Sue**
- **20%** vote for **Pete**
- **the rest** vote for **Ann**

a. How many votes does **Sue get**?

_____ **votes**

b. How many votes does **Sue get more than Tom**?

_____ **votes**

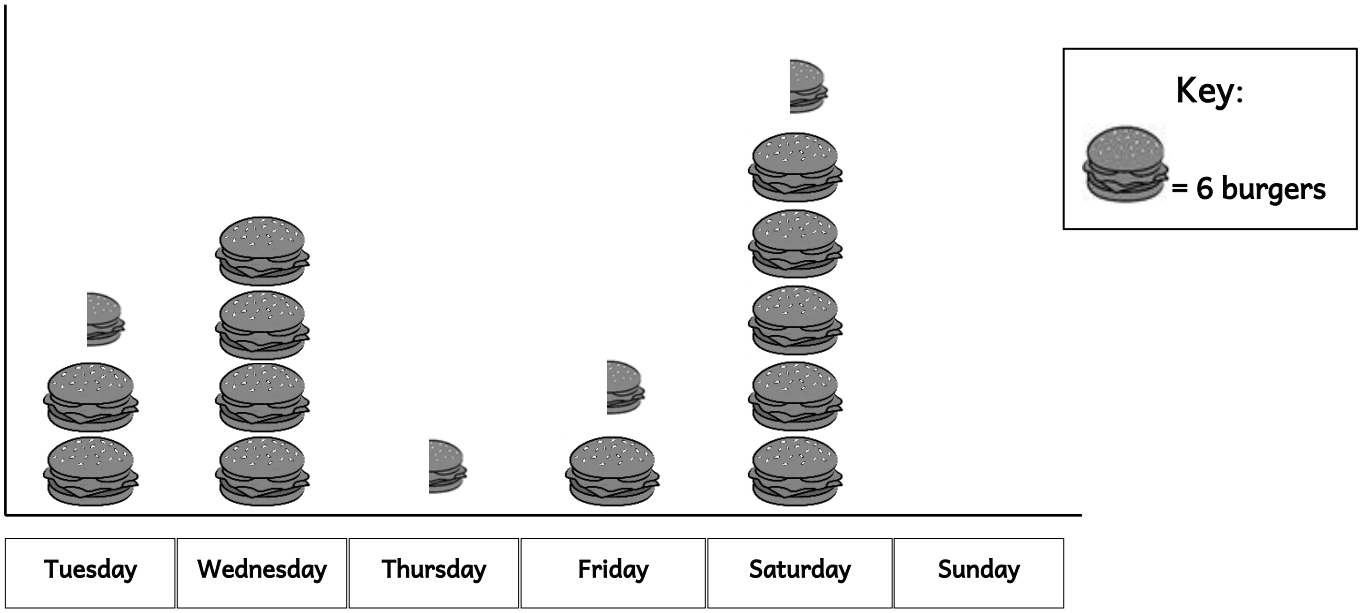
c. What **percentage** of all the votes does **Ann** get?

_____ **%**

d. Who **wins** this election?
Tick (✓) the correct answer.

☐ **Tom** ☐ **Sue** ☐ **Pete** ☐ **Ann**

12. Max sells burgers in a kiosk.
These are the burgers he sold last week from Tuesday to Sunday.



a. How many burgers did he sell **on Wednesday**?

_____ **burgers**

b. On which day did he sell **15 burgers**?

_____

c. How many **more** burgers did he sell on **Friday than on Thursday**?

_____ **burgers**

d. On Sunday, Max sold **9 burgers more than he did on Saturday**.
Complete the pictograph to show how many burgers he sold on Sunday.

e. **Each** burger costs **€1**.
How much money did Max get from the burgers he sold last week?

€ _____

13. **Five women** check their weight.

a. The table below shows their weight.

Katie	Maria	Bernice	Grace	Emma
75 kg	65 kg	72 kg	58 kg	70 kg

Work out the **average weight** of the **five women**.

_____ kg

b. Months later they check their weight again.
The **average weight** of the five women increases to **71 kg**.

Katie	Maria	Bernice	Grace	Emma
4·5 kg more	62 kg	76·8 kg	61·6 kg	?

i) What is **Katie's new weight**?

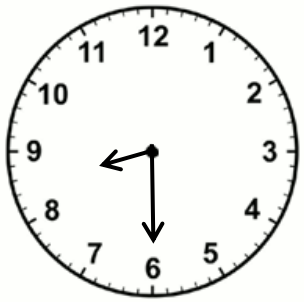
_____ kg

ii) Work out **Emma's new weight**.

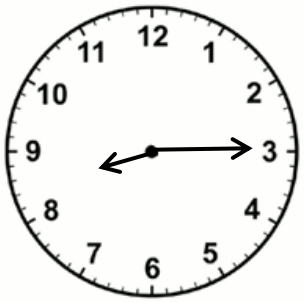
____ kg ____ g

14. Look at these two clocks.

Clock A



Clock B



a. They should show the **same time**, but **Clock A** is **5 minutes fast** and **Clock B** is **10 minutes slow.**

What is the **correct time**?

Give your answer in **digital form**.

_____ : _____

bi) Jacob spends **6 hours** at school every day.

What **fraction** is this of the **whole day**?

Write your answer in its **simplest form**.

ii) Jacob **starts** his homework at **20 minutes to 4** in the **afternoon**.

- He spends **half an hour** on Maths.
- He stops for **10 minutes** for a snack and another **15 minutes** to call a friend.
- Then he continues his homework for another **25 minutes**.

At what time does he **finish** his homework?

Give your answer in **24-hour clock** time.

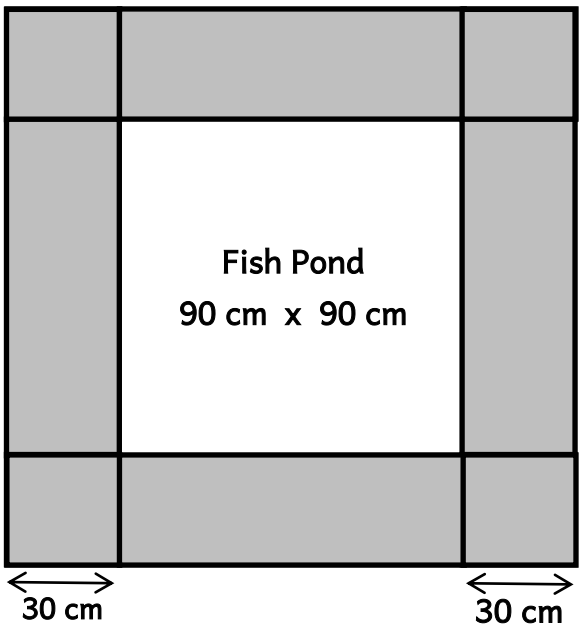
_____ : _____

15. Ana has a fish pond.
The fish pond is **90 cm long** and **90 cm wide**.

a. What is the **area** of the **fish pond**?

_____ cm^2

b. Ana decides to put tiles around her fish pond.
She places **four square tiles** and **four rectangular tiles** around the fish pond.
The **square** tiles cost **€4·25 each** and the **rectangular** tiles cost **€6·50 each**.

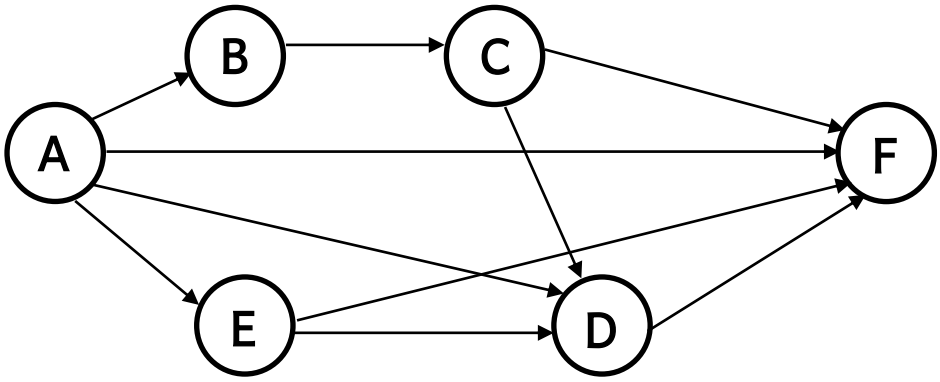


i) Work out the **total cost** of the tiles.

€_____

ii) Ana's friend thinks that it **costs less** to use **square tiles** all the way around the fish pond. Do you agree with Ana's friend? **Explain**.

16. Six villages A, B, C, D, E and F are connected by bus routes.
The direction the bus takes is marked with an arrow.
Isaac wants to go from village A to village F by bus.
Isaac can take different routes.



a. How many **different bus routes** are there from **village A** to **village F**?

_____ **routes**

b. The table below shows the distance for each direct route.

A to B	A to D	A to E	A to F	B to C	C to D	C to F	D to F	E to D	E to F
1·45 km	6·4 km	2·14 km	9·7 km	2·1 km	2·48 km	4·11 km	3·4 km	3·45 km	7·56 km

How long, **in km**, is the **shortest route from village A to village F**?

_____ **km**

END OF PAPER

Marking Scheme

Mental Paper	Numbers	1 - 20	20 × 1 mark	=	20 marks
Written Paper	Numbers	1 - 4	4 × 4 marks	=	16 marks
		5 - 12	8 × 5 marks	=	40 marks
		13 - 16	4 × 6 marks	=	24 marks
			TOTAL		**100 marks**