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:

43 → ×10 → ⬯ → + 0·5 → ⬯
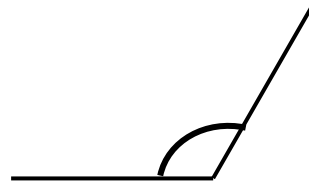
⬯ ← ÷ 10

4305

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

i)

ii)
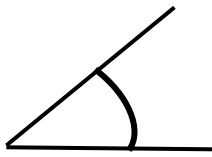
acute angle ☐

right angle ☐

obtuse angle ☐
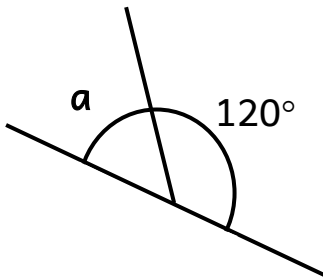
acute angle ☐

right angle ☐

obtuse angle ☐

b. **Work out** the size of angle *a* and angle *b* in the diagrams below.

Do not measure.
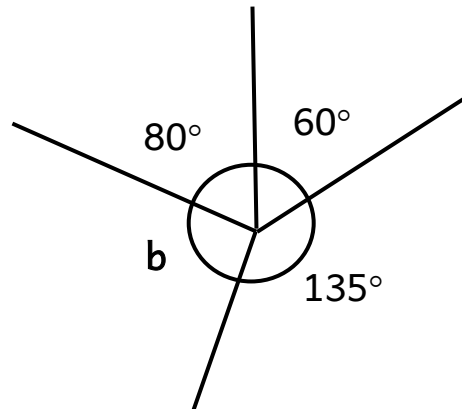
i)

a

120°
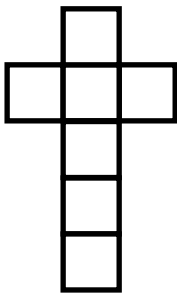
ii)

80° 60°

b

135°

angle *a* = | _____ °

angle *b* = | _____ °

4. Below there are four nets of shapes.

Tick (✓) the nets which form a **cube**.

There is more than one answer.

Net A
☐
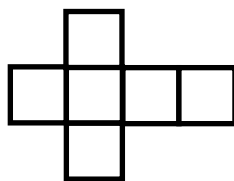
Net B
☐
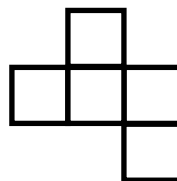
Net C
☐
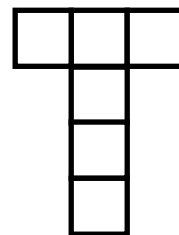
Net D
☐

5a. **Fill in** correctly.

$$60\% = \frac{\boxed{}}{\boxed{100}} = \frac{\boxed{}}{\boxed{10}} = \frac{\boxed{3}}{\boxed{}} = \boxed{\_\_\,.\,\_\_}$$

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

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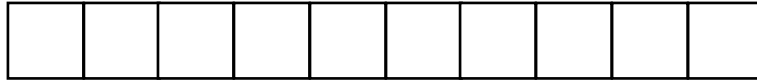
6. Look at the numbers below.

Use each of these numbers **once** to fill in correctly.

| 45 | 53 | 34 | 32 |

| 66 | | 72 | |
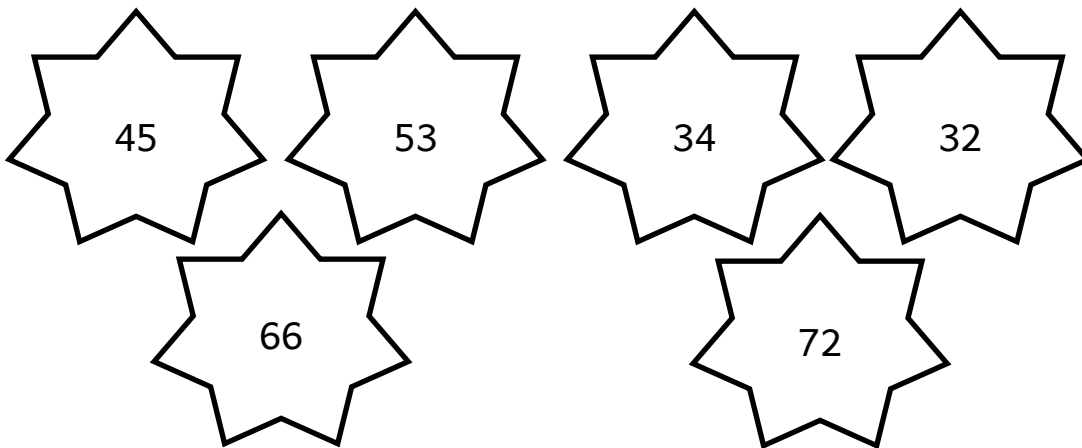
$\boxed{}$ is a **common multiple** of $\boxed{9}$ and $\boxed{8}$

$\boxed{} \; + \; \boxed{} \; = \; \boxed{100}$

$\boxed{} \; + \; \boxed{} \; - \; \boxed{} \; = \; \boxed{66}$

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

$$2·3 × 5 = 11·5$$

a. $11·5 ÷ 5 = $

b. $23 × 5 = $

c. $2·3 × 50 = $

d. $0·23 × 5 = $

e. $2·3 × \boxed{} = 13·8$

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8. The shapes below are made up of **white tiles** and **shaded tiles**.
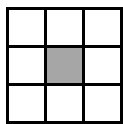
Shape 1
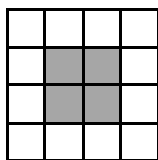
Shape 2
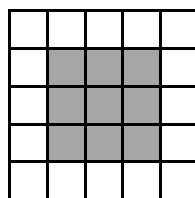
Shape 3
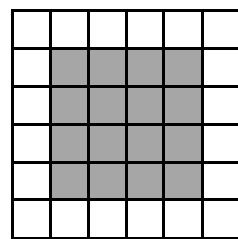
Shape 4

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.

12·6 cm
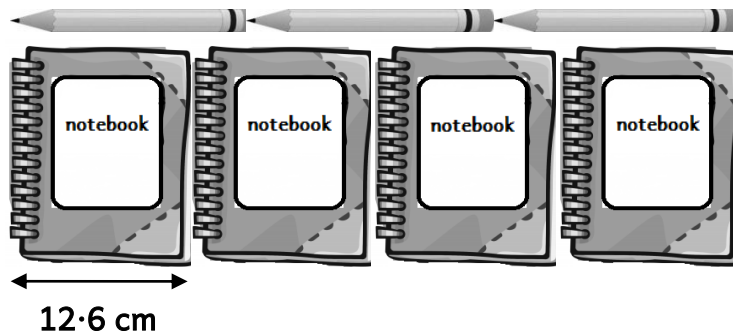
i) Work out, **in cm**, the total length of the **three pencils**.

[_____ cm]

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

[_____ mm]

10. The following are the prices of items at a supermarket.
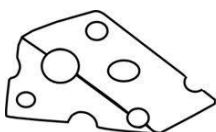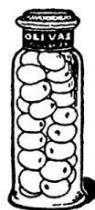
ham	cheese	olives	milk
€1·82 for 100 g	€1·64 for 100 g	82 cent for 100 g	47 cent each carton

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**

- $\dfrac{2}{5}$ 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 Sun...

Key

= 6 burgers

Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
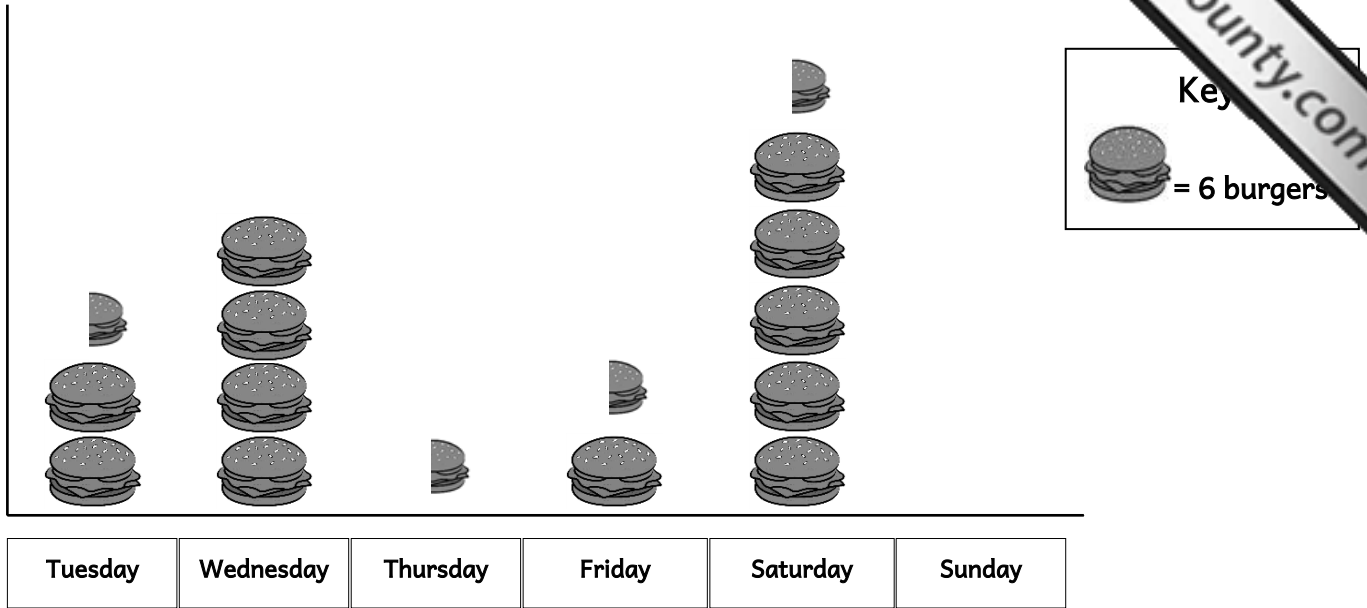
a.   How many burgers did he sell **on Wednesday**?

_____ 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
```
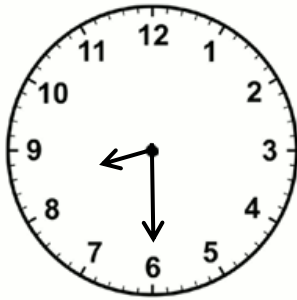
ii) Work out **Emma's new weight**.
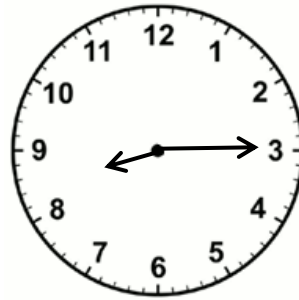
```
_____ kg _____ g
```

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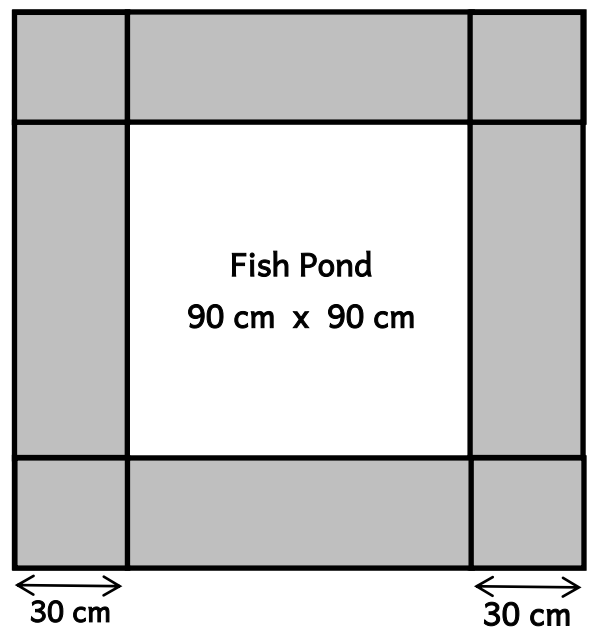
Give your answer in **24-hour clock** time.

_____ : _____

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**.

   Fish Pond
   90 cm x 90 cm

   30 cm   30 cm

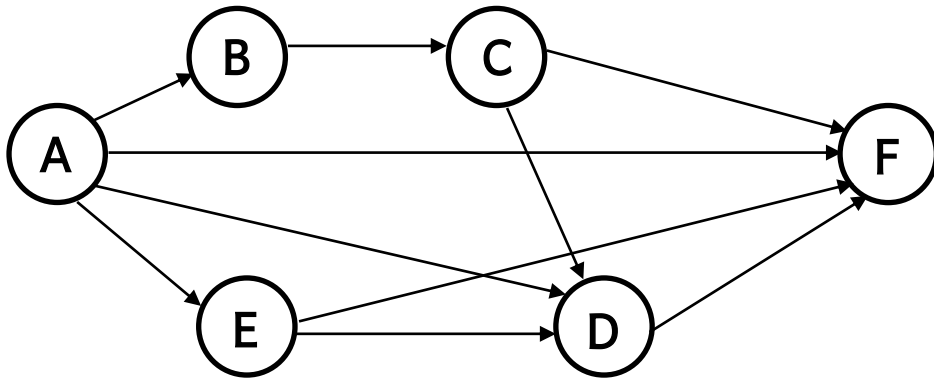i) Work out the **total cost** of the tiles.

€_____

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