

Do not turn over or open this booklet until told to do so

CEA

Common Entrance Assessment

Paper 1

Saturday 13 November 2010

Time: 1 Hour

Please fill in the following from your admission card:

Your Candidate Number _____

Your Assessment Centre _____

Your Date of Birth _____

Answer all 58 questions in this booklet

NOT TO BE FILLED IN BY THE PUPIL			
MATHEMATICS			
Page	Marks	Score	Check
1	(2)		
2	(3)		
3	(3)		
7	(2)		
8	(4)		
9	(2)		
13	(2)		
14	(2)		
15	(3)		
16	(1)		
20	(4)		
21	(4)		
TOTAL 32			

NOT TO BE FILLED IN BY THE PUPIL			
ENGLISH			
Page	Marks	Score	Check
4	(2)		
5	(5)		
6	(2)		
10	(1)		
11	(3)		
12	(1)		
17	(2)		
18	(6)		
19	(2)		
22	(2)		
23	(6)		
TOTAL 32			
TOTAL SCORE			

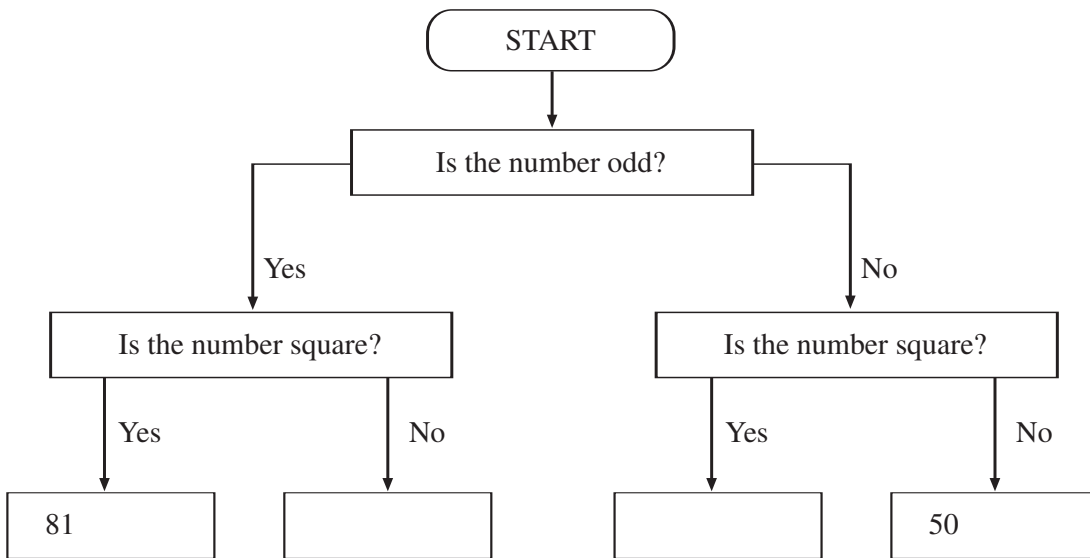
1. The temperature in London is 11°C and the temperature in Moscow is -18°C . What is the **difference** between the 2 temperatures?
Write your answer in the space below.

_____ $^{\circ}\text{C}$

2. Look at the **6 numbers** in the box below.

20	25	45
50	64	81

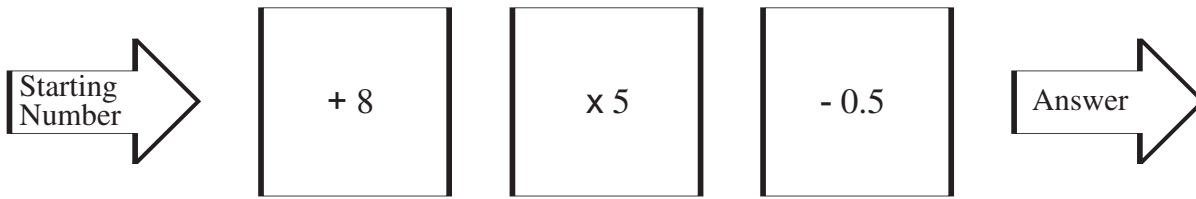
Now look at the decision tree below.



Write **each of the numbers** in the **correct box** of the decision tree.
Two of the numbers have already been **put in the correct boxes**.
Write each of the remaining numbers in the correct box. You may have more than one number in a box.

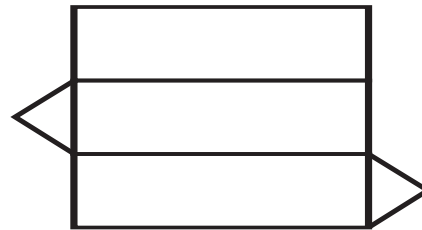
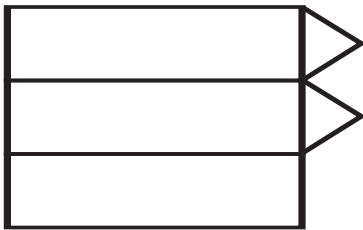
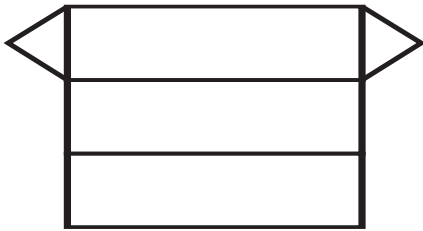
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3. Look at the function machine below.



What answer does this function machine give when the **starting number** is 12? Write your answer in the space below.

4. Two of the 4 figures below **could be** the net of a triangular prism. Circle the 2 figures that could be nets of a triangular prism.



5. The pairs of fractions in (a) and (b) below are **equivalent fractions**. Write the **missing numbers** in the boxes.

(a) $\frac{3}{\square} = \frac{9}{15}$

(b) $\frac{\square}{9} = \frac{35}{63}$

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6. Write **110 hours** in **days** and **hours**.
Write your answer in the spaces below.

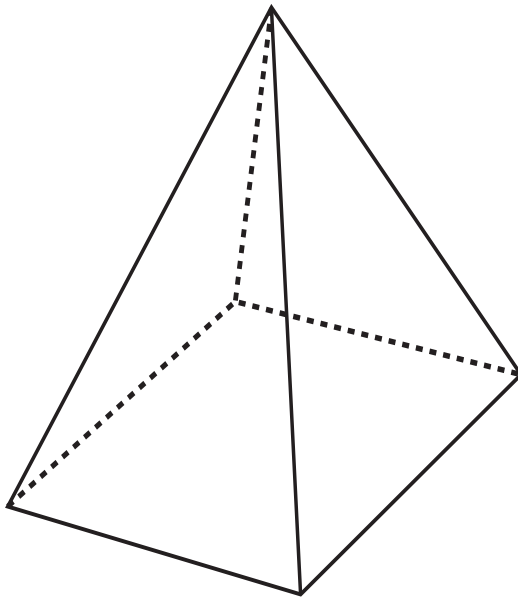
_____ days _____ hours

7. **Complete these calculations** by writing an answer in each of the two spaces below.

(a) $1749 + 5862 =$ _____

(b) $3687 +$ _____ $= 5604$

8. Look at the **square pyramid** below.



Complete the table below to show the number of **faces**, **edges** and **vertices** in the pyramid. Write your answers in the boxes below.

Faces	Edges	Vertices

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Poem 1 and questions 9 to 15 here

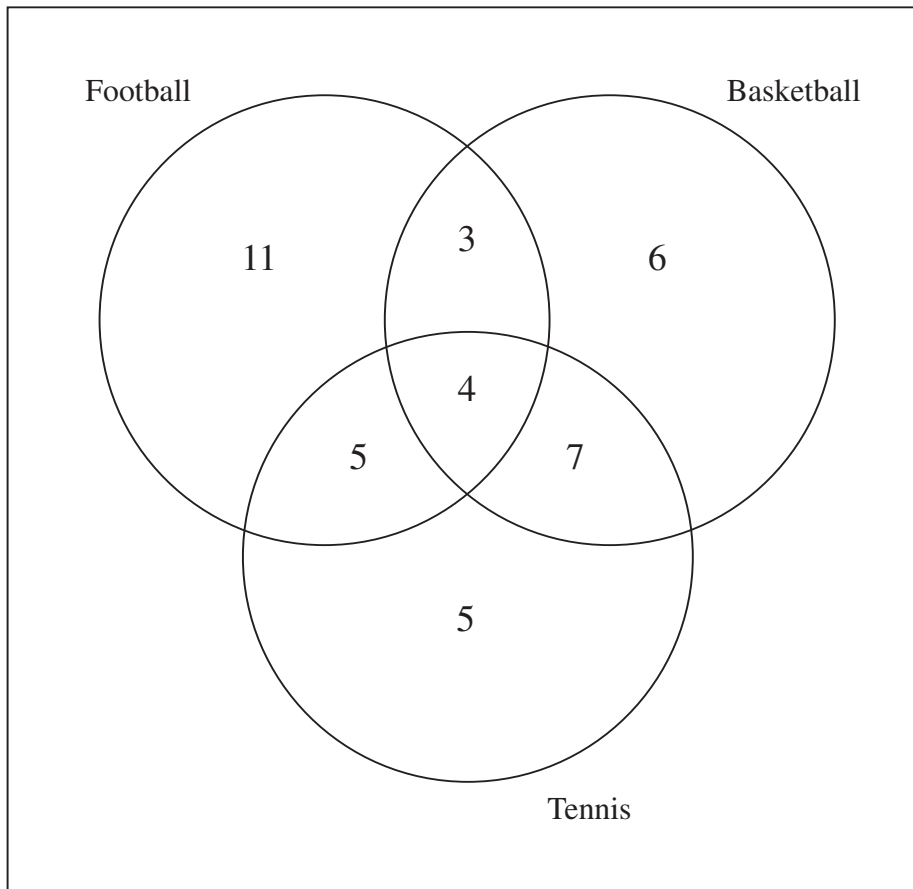
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Poem 1 and questions 9 to 15 here

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Poem 1 and questions 9 to 15 here

16. A youth club has facilities for **football**, **basketball** and **tennis**.
The Venn diagram below shows the number of youth club members who play these sports.



How many members play basketball **and** tennis **but not** football?
Write your answer in the space below.

17. Look at the numbers below. Tick the number in which **5** stands for **five tenths**.

409.15

315.3

267.5

153.8

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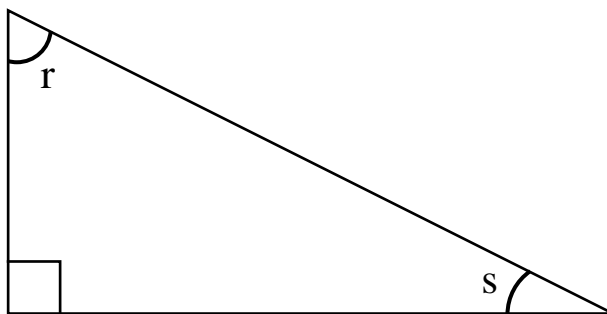
18. The **normal** price of a games console is **£190**. In a **sale** it is **reduced by 25%**. **How much does Pamela pay** for it in the sale?
Write your answer in the space below.

£ _____

19. In **2011** the **8th October** will fall on a **Saturday**. **What day** will the **8th November 2011** fall on? Write your answer in the space below.

20. What is **half of 9.2**? Write your answer in the space below.

21. Look at the **right-angled triangle** below.



Angle **r** is **50° bigger than** angle **s**. What is the size of angle **s**?
Write your answer in the space below.

_____°

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22. Mr Danker makes chocolates. He has **391 chocolates**. He wants to put the chocolates in 23 boxes. Each box must contain the **same number of chocolates**. Look at the 4 calculations below. Tick the calculation Mr Danker must do to work out **how many chocolates go in each box**.

391 - 23

23 ÷ 391

391 ÷ 23

23 - 391

23. Look at the **2 times** below. Write each as a **24 hour clock** time. Write your answers in the spaces below.

3.15 a.m. _____

7.45 p.m. _____

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The letter that you are about to read contains five errors. Read the letter and then answer the questions that follow it.

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School Swimming Lessons

Dear Headmaster, (line 1)
I am one of your pupils, and this is the first letter to you that Ive ever (line 2)
written. I would like to talk to you about our swimming lessons. (line 3)
I think that they are too short. We only get thirty-five minutes (line 4)
and buy the time we get changed in and out of our clothes, there (line 5)
is no time for swimming. (line 6)

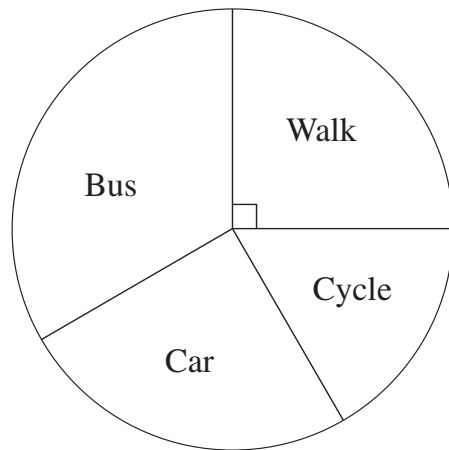
Also, I think that the pool is in bad condision. The sides are very (line 7)
slippery and the pool does not get cleaned very often. (line 8)
I hope that you don't think that I am moaning just for the sake of it, (line 9)
My friends agree with me and think that I should write to you. (line 10)
I would like you to think about what I have to say. Do you think (line 11)
that you might speak to me about this. (line 12)
Thank you for your time. (line 13)

Yours faithfully, (line 14)
Peter Smith (line 15)

24. Each line of Peter's letter is numbered. In one line of the letter a question mark is needed instead of a full stop. Tick the number of the line where a question mark is needed.

- line 6
- line 8
- line 11
- line 12

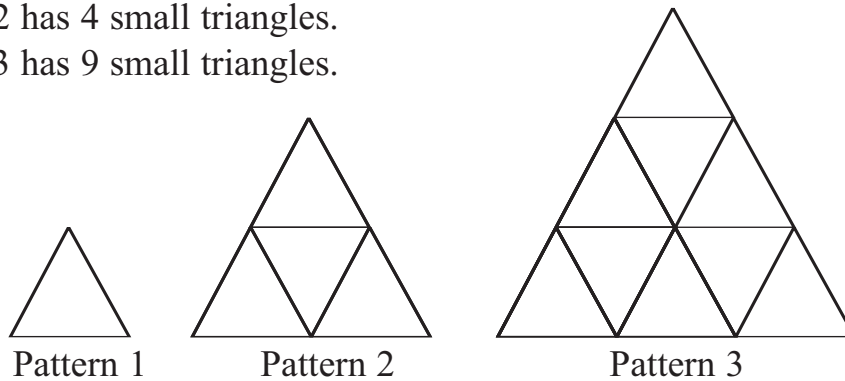
31. The pie chart below shows how **100 children** travel to school each day.



The number of children who travel to school **by car** is **19**.
Twice as many travel to school **by bus** as by car. **How many children cycle** to school? Write your answer in the space below.

32. Look at the sequence of **3 patterns** below. In each pattern small **triangles** are used to make **bigger triangles**.

Pattern 1 has 1 small triangle.
 Pattern 2 has 4 small triangles.
 Pattern 3 has 9 small triangles.



Look at the table below for the number of small triangles in each pattern.

Pattern	1	2	3
Number of small triangles	1	4	9

How many **small triangles** are there in **Pattern 5**? Write your answer in the space below.

_____ small triangles.

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Poem 2 and questions 37 to 43 here

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Poem 2 and questions 37 to 43 here

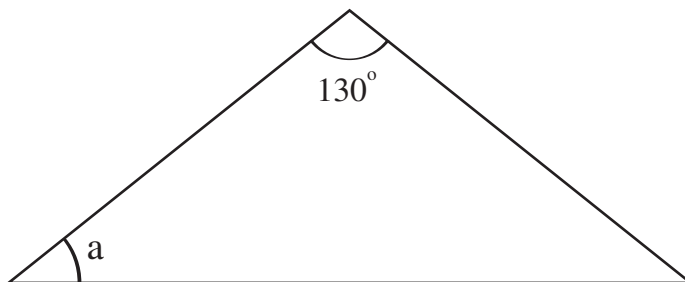
44. Sugar costs **£4.90 per kilogram**. How much would **400 g** cost?
Write your answer in the space below.

£ _____

45. Look at the sequence of numbers below. **Complete the sequence** by writing the correct numbers in the **2 spaces** below.

____, 111, 115, 120, 126, 133, ____

46. The **triangle** below is **isosceles**.



Calculate the value of the angle **a**. Write your answer in the space below.

_____ °

47. The table below shows the times taken by 4 girls in the sprint event at a school sports day.

Girl	Time (seconds)
Ellen	19
Niamh	21
Laura	19
Andrea	17

What is the **mean** (average) time taken by the 4 girls? Write your answer in the space below.

_____ seconds

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48. Look again at the times taken by the 4 girls in the previous question. What is the **range** for these times? Write your answer in the space below.

_____ seconds

49. Paul's car has run out of petrol. The petrol tank on Paul's car holds **50 litres** of petrol. Petrol costs **£1.25 a litre**. **How much does it cost** Paul to **fill the tank** with petrol? Write your answer in the space below.

£ _____

50. Look at the bus timetable below.

	Bus A	Bus B	Bus C	Bus D
Belfast	07:11	08:11	09:11	10:11
Banbridge	07:49			10:52
Newry	08:12	09:02	09:56	
Dundalk	08:44		10:32	11:37
Drogheda	09:15	10:09	11:08	12:13

How long does **Bus A** take to travel from **Banbridge** to **Drogheda**? Give your answer **in minutes**. Write your answer in the space below.

_____ minutes

51. **Which** of the **4 buses** takes the **shortest time** to travel from **Belfast** to **Drogheda**? Give your answer by writing **A, B, C** or **D** in the space below.

Bus _____

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