STIRLING TUITION

SEAG

Entrance Assessment

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Practice Paper 21

(Cut Answer Sheet from Back Page)

English – Practice Test

In this question there is either **one** punctuation mistake or **no** punctuation mistake. Find the group of words with the mistake in it and mark its letter on your answer sheet. **If there is no mistake, mark N**.

Capital Letter

P1 A bottlenose dolphin (Fungie) became famous for visiting the town of dingle in Ireland.

              A   B   C   **D**

In this question you have to choose the **best** word to complete the sentence, so that it makes sense and is written in correct English. Choose the **best** answer and mark its letter on your answer sheet.

P2 We don't know how the prisoner managed to escape

| in | away | out | from | to | of the locked room.
|----|------|-----|------|----|
| A | B | C | D | E |

In this question there is either **one** spelling mistake or **no** spelling mistake. Find the group of words with the mistake in it and mark its letter on your answer sheet. **If there is no mistake, mark N**.

Knighted

P3 In 1985, David Attenborough was nighted by the Queen for his work in conservation.

          A   **B**   C   D

Read this passage to yourself.

The Big Garden Birdwatch

Since 1979, The Royal Society for the Protection of Birds has been carrying out a yearly survey to keep an eye on the numbers of birds nationwide. This is an enormous task, so the RSPB has asked the public to help by recording the different species they see in their gardens. This year over four hundred thousand people took part, recording over six million bird sightings. Of the results received, it was noted that numbers of blackbirds and robins in our gardens has declined in the past year.

Answer this question. Choose **one** answer from the options below and mark its letter on your answer sheet.

P4

Which of the following is true about the RSPB survey?

    A It has been going since 1879.
    B It showed that numbers of robins were increasing.
    C Over four hundred people took part in it.
    D It takes place every year.
    E It tracks numbers of mammals nationwide.

For this question, you have to write your answer in the box provided on your answer sheet (box P5).

P5

Which one word from the passage means the same as "decreased"?

Declined

END OF ENGLISH PRACTICE TEST
Do not turn over until you are told to do so ⚠️

P6

Look at the statement below.

$673 - g = 463$

What is the value of g?

$$\begin{array}{r} 6\ 7\ 3 \\ -\ 4\ 6\ 3 \\ \hline 2\ 1\ 0 \end{array}$$

A 123   B 1136   (C 210)   D 218   E 1316

P7

$\overset{\times 1000}{\frown}$

$1L = 1000ml$

$3.5 \times 1000 = 3500$

$$\begin{array}{r} 0\ 5\ 0 \\ 70\ \overline{)3500} \end{array}$$

A 3.5 litre bottle of water is shared equally between 70 people.

How many millilitres of water does each person get?

(A 50)   B 400   C 500   D 30   E 600

P8

What number do you get when you find the **sum** of the first four **multiples of 9?**

(handwritten, left:)
```
  36
  27
  18
+ 39
─────
  90
```

(above question: +)

or ←─────────────────────────────→

A 36   **B 90** *(circled)*   C 54   D 135   E 108

(handwritten, right:)
9, 18, 27, 36
1x + 2x + 3x + 4x =
10 × 9 = 90

For these questions you have to **write your answers** in the boxes provided on your answer sheet (box P9 and P10). The units of measurement have been given.

P9

A pupil brings 35 photos of her family into school. Each photo has one member of her family. There are:

Mother = 12
Father = 5
Brother = 2
Sister = 1
Grandmother = 8
Grandfather = 7

The pupil picks a photo at random. Look at the five outcomes below:

Outcome A: The photo is **not** of father. $\frac{30}{35}$ *(circled)*
Outcome B: The photo is of brother $\frac{2}{35}$
Outcome C: The photo is of grandmother or of mother. $\frac{20}{35}$ 12 + 8 = 20
Outcome D: The photo is of grandfather. $\frac{7}{35}$
Outcome E: The photo is not of sister or of grandfather. $\frac{28}{35}$

(handwritten, right:)
1 + 7 = = 8
```
  35
-  8
────
  28
```

Which outcome above (A-E) is the most likely?

(handwritten answer box:) A

P10

Look at the number written in words below:

One million and one and three quarters.

What is this number in digits?

(handwritten answer box:) 1,000,001.75

(handwritten:) (with or without decimals)

END OF MATHS PRACTICE TEST
Do not turn over until you are told to do so ⚠

English – Main Test

In this exercise there are some mistakes with **punctuation** or use of **capital letters**. On each numbered line there is either **one** mistake or **no** mistake. Find the group of words with the mistake in it and **mark its letter on your answer sheet. If there is no mistake, mark N.**

Punctuation Exercise

1 The plane, which was travelling from Dublin, arrived in London two hours late.
    A   B   C   D   [N]

Your is is ✗, No apostrophe

2 I am sure that this is my jacket. Your's is hanging up in the cupboard under the stairs.
    A   (B)   C   D

Apostophe

3 It's too wet to have a picnic in the park today. Lets have a picnic in the house instead.
    A   B   (C)   D

Open speech marks

4 "Don't worry about the mess!" he said brightly. I'll clean it up when I have finished."
    A   B   (C)   D

Question ?

5 "My bike was stolen from school yesterday," she wailed. "Why would someone do that."
    A   B   C   (D)

In this exercise you have to choose the **best** word, or **group of words**, to complete each numbered line so that the passage makes sense and is written in correct English. Choose the best answer and **mark its letter on your answer sheet**.

Grammar Exercise

6   I am saving all my pocket money

for | so | that | though | than | I can buy a new phone.
A   B   C   D   E

7   We aren't going to the concert tonight. We have decided to stay

in | with | over | on | around | .
A   B   C   D   E

8   You never tell | tells | has told | will tell | told
A   B   C   D   E

me that you were an award-winning writer.

9   If you give up now your | you've | you | you'll | you're
A   B   C   D   E

always regret it.

10   Where did this | these | that | some | a
A   B   C   D   E

books come from? I have never seen them before.

In this exercise there are some **spelling** mistakes. On each numbered line there is either **one** mistake or **no** mistake. Find the group of words with the mistake in it and **mark its letter on your answer sheet. If there is no mistake, mark N.**

Spelling Exercise

Curious

11 James is always asking questions about everything! He is such a curius child.

A   B   C   (D)

Potatoes

12 This year we will be growing potatos and carrots in the school vegetable garden.

A   (B)   C   D

resturant

13 She arranged to meet her friends and family at the resterant at eight o'clock.

A   B   (C)   D

14 We invited all our family to a party to celebrate my parent's wedding anniversary.

A   B   C   D   [N]

neighbours

15 The neighbors all came over to welcome the new family to their street.

(A)   B   C   D

Read the **whole** passage carefully, then answer the questions that follow.

Clever Dog!

1. "Man's best friend". This is the phrase that is often used about dogs. It is perhaps not
2. surprising that the UK's favourite pet is the dog. More than a quarter of us own a dog
3. and it is estimated that there are around 19 million dogs living in the UK. The friendship
4. between an owner and their dog offers a wealth of health benefits both physically and
5. mentally. People who own dogs are more likely to have an active lifestyle which can
6. reduce blood pressure and improve heart health. Studies have also shown that owning a
7. dog can improve your mental health. Contact between a dog and its owner increases
8. "feel good" brain chemicals such as oxytocin and dopamine which reduces stress levels
9. and increases happiness.

10. This bond can also be seen in the way that dogs work to help humans in everyday life.
11. The charity Guide Dogs was established in 1931 and has helped 36,000 blind people by
12. partnering them with a guide dog. Stacey, who lost her sight when she was only
13. eighteen years old, was partnered with her guide dog Toffee and she said that it has
14. changed her life. She says that, "I haven't got my anxieties because Toffee's by my side.
15. He gave me my life back and it's taught me that no matter how many hurdles happen in
16. life, you can always get over it."

17. Dogs are an important part of our lives and sometimes it feels like they know exactly
18. what we are saying and how we are feeling. Many dog owners communicate with their
19. dogs, but often, they wish that the dog could communicate back. We know that dogs
20. can't talk back to us, but new research suggests that they are able to communicate with
21. humans in a different way. We have all heard of the expression, "puppy-dog eyes." But
22. now there is scientific evidence which shows that this is more than just a commonly
23. used phrase. A research team from The University of Portsmouth led by psychologist Dr
24. Juliane Kaminski have been carrying out studies comparing the anatomy and behaviour
25. of dogs and wolves.

26. The team focused on the dog's eyes as they had observed how important eye contact is
27. between dogs and humans. It is well known that dogs are able to understand physical
28. human communication such as pointing and hand gestures, but this communication is
29. also backed up with eye contact. Dogs will maintain eye contact with the human giving
30. the directions in order to understand whether the command is meant for them. In fact,
31. it was noticed that some dogs ignored physical commands such as pointing, if the
32. human did not maintain eye contact with the dog when they were giving it.

33. The team found that a dog's facial anatomy has changed over thousands of years which
34. has resulted in the species' ability to communicate more closely with humans. In
35. comparing the facial expression of wolves and dogs, the team were able to determine

36. that dogs have a small muscle which allows them to raise their eyebrow significantly.
37. This makes their eyes appear bigger. Wolves do not have this ability. The result of the
38. wide "puppy-dog eyes", triggers a sympathetic response in humans as it is similar to the
39. expression a human makes when they are sad. It also makes the dog look childlike so it
40. is an example of cuteness ensuring the survival of a species. It is thought that the dog's
41. anatomy began to change during the transition from working dogs, which were kept
42. outside the home, to pets who lived in the home with humans.

43. As facial expressions are critical to human interaction, it is clear that a dog's ability to
44. communicate with its eyes has been instrumental in cementing the longstanding bond
45. between the two species. In fact, the scientific research team believe that dogs are
46. aware of this trait and use it to their advantage. They found that dogs moved their
47. eyebrows up more when humans were looking at them compared to when they were
48. not looking at them. The study also looked at dogs who were in animal shelters waiting
49. to be adopted. Results showed that dogs who moved their eyebrows to make their eyes
50. look bigger more often, were adopted more quickly than other dogs. Clear evidence of
51. how much humans are affected by puppy-dog eyes!

52. So, while our four legged friends cannot communicate with us verbally, it is clear that
53. they have been sharing their feelings with us for thousands of years. Perhaps this is why
54. they truly are, "man's best friend."

Please answer these questions. (Look at the passage again if you need to.) You should choose the **best** answer and mark its letter on your answer sheet.

16   **What are the main reasons why owning a dog is beneficial to humans?
CHOOSE 2**

    1. Dogs are friendly.
    2. Dogs encourage humans to be active.
    3. Dogs make the best pets.
    4. Dogs make humans feel happier.
    5. Dogs are healthy animals.

    A 1 and 2
    B 2 and 3
    C 4 and 5
    D 1 and 3
    E 2 and 4

17   **What did Stacey learn from her guide dog Toffee?**

    A Guide dogs are very clever.
    B Guide dogs are very loving.
    C Life is difficult and scary.
    D Life is difficult but you can keep going.
    E Life is more difficult for people who are blind.

18   **Which part of the dog did the research team from The University of Portsmouth focus on?**

    A ears
    B eyes
    C brain
    D tail
    E nose

19   **What is needed for a dog to follow and obey commands more effectively?**

    A Clear physical commands from humans.
    B Clear verbal commands from humans.
    C Eye contact between the dog and the human.
    D A strong bond between the dog and the human.
    E Many hours of intense training.

20 What about dogs has changed over thousands of years?

    A The size of their body.
    (B) The structure of their face.
    C They have become more friendly.
    D They have become stronger.
    E They have become more hairy.

21 What is the result of dogs' ability to make their eyes appear bigger?

    (A) It makes them look cute.
    B It helps dogs to see better.
    C It makes them seem more intelligent.
    D It helps them to get more food.
    E It makes them more amusing.

22 According to the passage, what does the scientific research team believe about dogs' ability to make their eyes appear bigger?

    A It is unusual.
    B Dogs are unaware of it.
    (C) Dogs are aware of it.
    D Humans are unaware of it.
    E It is not important.

For these questions you have to **write your answers**, neatly, in the boxes provided on your answer sheet.

23 Look at lines 10 – 12. How many blind people have been helped by Guide Dogs?

36,000

24 What other animals, apart from dogs, were examined in the study by the research team from The University of Portsmouth?

Wolves

25 Which four word phrase from line 43 tells us that facial expressions are very important to humans?

Facial expressions are critical

26 Which five word phrase from lines 12-14 tells us that Toffee has made a big difference to Stacey's life?

It has changed her life

27 Look at the sentence, "The study also looked at dogs….." (lines 48-49). Write all the prepositions in this sentence.

At , In

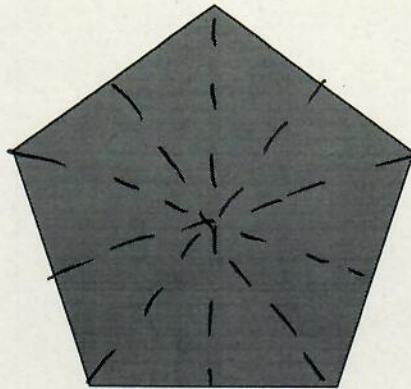**28** Which one part of speech are the following as they appear in the passage?

important (line 17)   different (line 21)   scientific (line 22)   physical (line 27)

Adjectives

29 Look at the regular pentagon below.

How many lines of symmetry does the regular pentagon have?

A 2   B 4   C 3   (D 5)   E 1

---

30 Rudy bought 6 bottles of water and paid with a £20 note. He received £1.10 change.

How much did he pay for four bottles of water?

A £3.15   B £18.90   C £6.30   D £1.10   (E £12.60)

31

Isla was given £600 for her birthday. She gave 70% of this money to charity.

She spent $\frac{8}{9}$ of her remaining money on a bracelet.

100% - 70% = 30%.

How much was the bracelet?

30% of 600, £180
×3
÷10

60
×3
180

A £160   B £180   C £420   D £373   E £89

×8
÷9 of 180 = 160

20
9⟌180

20 × 8 = 160

32

Look at the grid below. Three points have been marked on it.
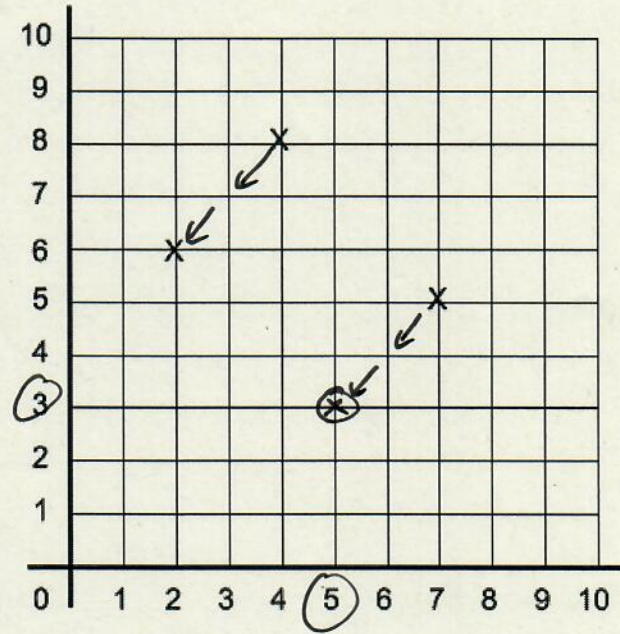
A fourth point must be marked on the grid so that the four points are the corners of a rectangle.

What are the coordinates of the fourth point of the rectangle?

A (4,3)   B (5,3)   C (6,2)   D (4,2)   E (6,3)

33

Each half of a playground game lasts 20 minutes, there is a 20-minute break at half-time. In the playground game the break at half-time started at 09:30.

At what time did the game end?

20min break
+20min 2nd Half
40mins

A 10:20   B 10:40   C 10:10   D 10:30   E 09:50

$$09:30 \\ + \quad 40 \\ \overline{09:70} \\ -60 \\ \overline{10:10}$$

34

A bath holds 300 litres of water when half full. The tap lets out 50 litres of water every minute.

600L

How many seconds does it take to completely fill the bath with water?

$$12 \\ \times 60 \\ \overline{720}$$

A 720   B 120   C 12   D 360   E 6

12 mins
5|600

35

Annie asks 6 friends how many siblings there are in their home. Their answers are shown in the list below:

1   3   2   4   1   2   ?   ? - 1 = 5

Annie then adds to this list the number of siblings in her home.

5 + 1 = 6

There are now 7 numbers in the new list. The range of these 7 numbers is 5.

How many siblings are there in Annie's home?

A 2   B 6   C 4   D 7   E 12

36

A primary school is organising a relay race for Primary 7 pupils. A relay team must have 8 runners. There are 130 pupils in Primary 7.

How many of those pupils will not take part in the relay race?

A 7   B 4   (C 2)   D 3   E 6

$$016 \; (r2)$$
$$8|130$$

37

Lilly is describing a quadrilateral to her classmates.

- It has obtuse and acute angles.
- It has two sides the same length.
- It has one set of parallel lines. = Always trapezium

What is the name of the quadrilateral that Lilly is describing?

A Rhombus   B Kite   C Parallelogram   D Rectangle   (E Trapezium)

38

Soup is put in the microwave at 3:26 pm. Its temperature is -7°C at the time. Its temperature increases by 2°C for every minute it is in the microwave.

What is the temperature of the soup at 3:41 pm?

A 37°C   B -30°C   C 30°C   D 27°C   (E 23°C)

$$15:41$$
$$-15:26$$
$$00:15$$

$$15 \times 2 = 30$$

$$\begin{array}{r} 30 \\ -7 \\ \hline 23 \end{array}$$

+7   +23

-7   0   23

39 Four identical rectangles are arranged to make a larger shape below.

(handwritten annotations on figure: 3, 7, 7, 7, 3, 7, 4, 3, 7, 4, 7, 7, 3)

(handwritten working:)
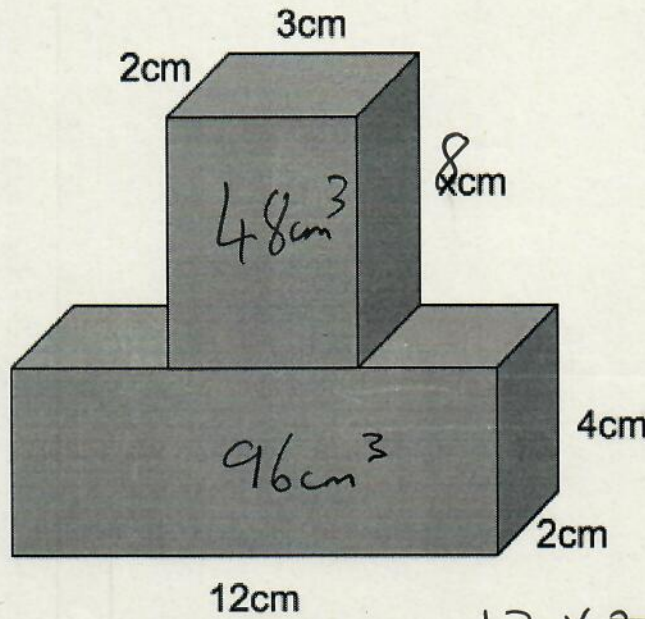$$7 \times 6 = 42$$
$$4 \times 3 = 12$$
$$2 \times 4 = +18$$
$$62$$
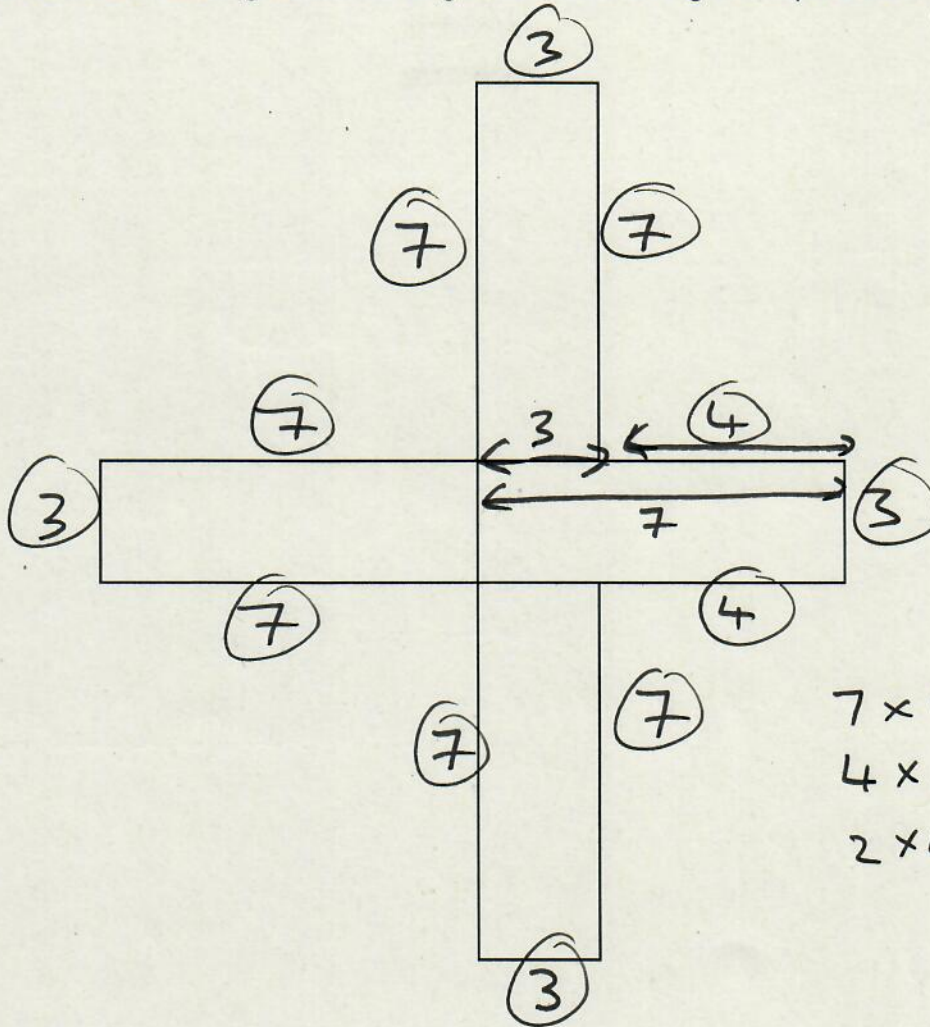
One of the smaller rectangles has a side length of 7cm by 3cm.

What is the perimeter of the larger shape?

A 68cm

B 80cm

C 73cm

D 62cm *(circled)*

E 66cm

40

The larger cuboid below has a volume which is twice as big as the smaller cuboid.

3cm

2cm

$48cm^3$

$x$cm

$96cm^3$

4cm

2cm

12cm

$$\begin{array}{r} 48 \\ 2\overline{)9\,16} \end{array}$$

$$\begin{array}{r} 8 \\ 6\overline{)4\,8} \end{array} \text{ or } 2\overline{)48} \quad \begin{array}{r} 8 \\ 3\overline{)24} \end{array}$$

$$12 \times 2 \times 4 = 96 \quad (8)$$

What is the value of x?

A 8cm (circled) **B** 48cm * **C** 12cm **D** 4cm **E** 96cm

41

How many factors of 36 are there between (10-30?)

A 4 **B** 2 (circled) **C** 3 **D** 9 **E** 6

1×36
2×18
3×12
4×9
6

42

Look at the patterns below. They are formed from identical square tiles.

Pattern 1	Pattern 2	Pattern 3
2	6	10

+4 *+4*
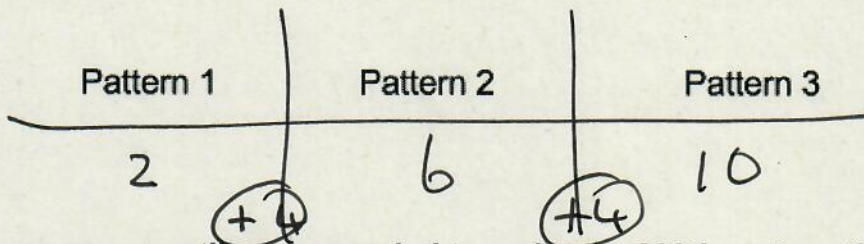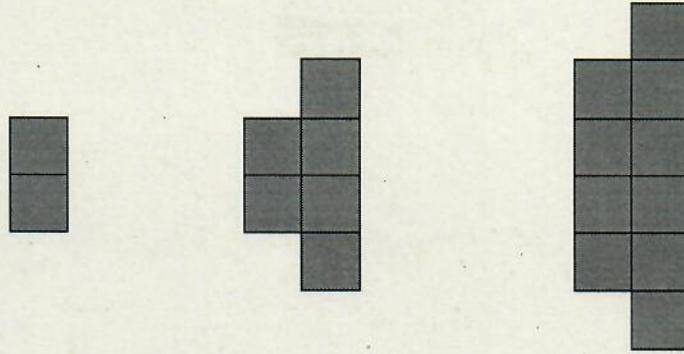
How many more tiles are needed to make the 200th pattern than the 196th pattern?

$$\begin{array}{r} 17 \\ -\ 1 \\ \hline 16 \end{array}$$

A 8   (B 16)   C 4   D 20   E 12

196	197	198	199	200
(1)	5	9	13	(17)
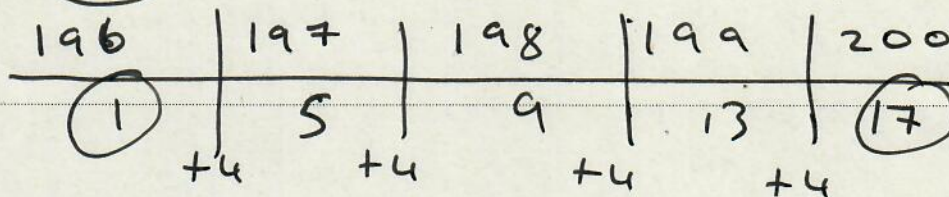
+4   +4   +4   +4

43

Jonny has saved 34 coins in his money box. His money box contains at least 4 of each of the following coins:

$4 + 4 + 4 + 4 + 4 + 4 = 24$

$\begin{array}{r} 34 \\ -24 \\ \hline \end{array}$

| 1p | 5p | 10p | 50p | £1 | £2 |

$4p + 20p + 40p + £2 + £4 + £8 = (£14.64)$

$10 \times £2 = (£20)$
$+$

What is the greatest amount of money Jonny could have in my money box?

£34.64

(A £34.64)   B £14.64   C £68.00   D £3.66   E £29.46

44

A child is standing on a ledge so that their feet are 22.3 m above ground level.
The child is 135 cm tall.
They stand upright and throw a ball upwards.
The ball reaches a height of 27000 mm above ground level.

ball ⬤

135 cm

22.3 m
2230cm

ground level

$1m = 1000mm$
$1m \xrightarrow{x100} 100cm$
$1cm = 10mm$ $\xleftarrow{\div10}$

$\div10$
$27000mm = 2700cm$

2230
$+135$
2365

$\begin{array}{r} 2\overset{6}{7}\overset{9}{0}\overset{1}{0} \\ -2365 \\ \hline 0335 \end{array}$

How far is this above the child's head in centimetres?

A 270cm   B 135cm   C 2700cm   D 2385cm   **E 335cm**

45

Look at the diagram below. It shows a square and a rectangle.

6 | 36cm² | 6
6cm

$\frac{6}{\sqrt{36}}$

9 cm
| 18 | 2 cm

$9 \times 2 = 18$
$\times 2$
36

The area of the square is two times the area of the rectangle.

What is the value of x?

A 36cm   B 9cm   C 18cm   **D 6cm**   E 3cm

---

46 What number is exactly halfway between 47 and 1001?

A 516   B 524   C 528   D 527   E 519

$$1001$$
$$+ 47$$
$$2\overline{)11048}$$
$$524$$

47 Sophia is building sandcastles every day while on holiday. Each day of her holiday she built 4 more sandcastles than the day before. She built 43 sandcastles on her eighth day on holiday.

How many sandcastles did Sophia build on her fourth day on holiday?

A 31   B 23   C 27   D 25   E 16

4	5	6	7	8
27	31	35	39	43

−4   −4   −4   −4

48 In a sale, a pair of football boots are reduced by a 10%.

$$100\% - 10\% = 90\%$$
$$\frac{9}{10}$$

Old Price	New Price
£50	£45.00

What was the old price of the football boots?

A £5.00   B £4.50   C $40.50   D £45.50   E £50.00

(Inverse)

$$\begin{array}{c} \div 9 \\ \times 10 \end{array} = £45$$

$$45 \div 9 = 5 \times 10 = 50$$

49

Look at the cuboid below.

6cm

9cm

12cm
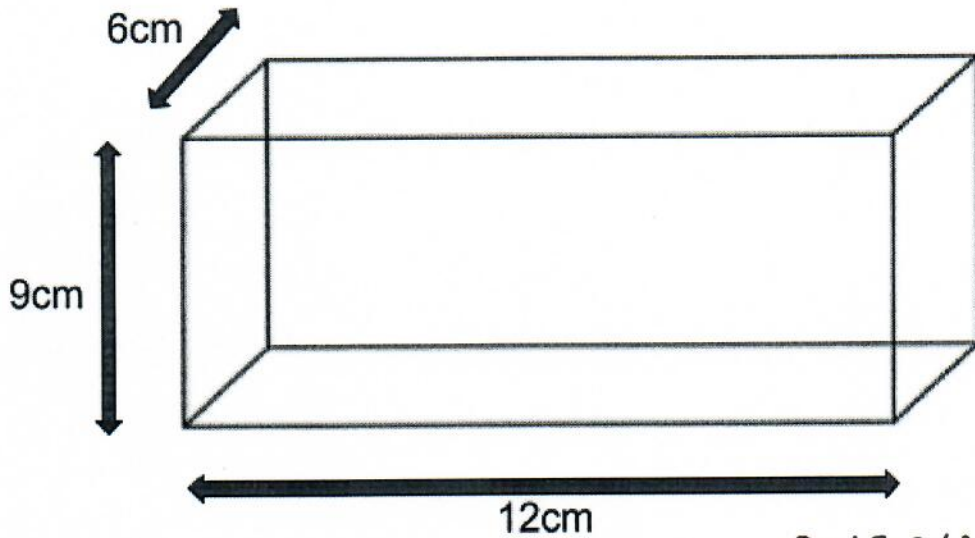
What is the total surface area of the cuboid?

$9 \times 12 = 108 \times 2 = 216$
$9 \times 6 = 54 \times 2 = 108$
$6 \times 12 = 72 \times 2 = 144$
$+ \overline{468}$

A 468cm²   B 108cm²   C 234cm²   D 648cm²   E 54cm²

50

Alfie and Louise are taking music lessons in school. The first three lessons costs £4 for each lesson. All further lessons cost £2.10 for each lesson.

Louise's lessons cost £24.60 in total.

How many lessons did she take?

$3 \times 4 = 12$

$\begin{array}{r} 24.60 \\ -12.00 \\ \hline 12.60 \end{array}$

A 6   B 9   C 10   D 7   E 3

$6 + 3 = 9$

$2.10 = 1$
$4.20 = 2$
$6.30 = 3$
$8.40 = 4$
$10.50 = 5$
$12.60 = 6$

$\begin{array}{r} 0 \ \ 6 \\ 7 \ \overline{4.20} \\ 3 \ \overline{12.60} \end{array}$

For questions 51–56, you have to **write your answers** in the boxes provided on your answer sheet. The units of measurement have been given.

51 Look at the Venn diagram below.

A is the set of whole numbers between 50 and 120 which are divisible by 5.

B is the set of whole numbers between 50 and 120 which are divisible by 7.

$5 \times 7 = \boxed{35}$

$35 = 1x$
$70 = 2x$
$105 = 3x$
$140 = 4x$

A (70 105) B
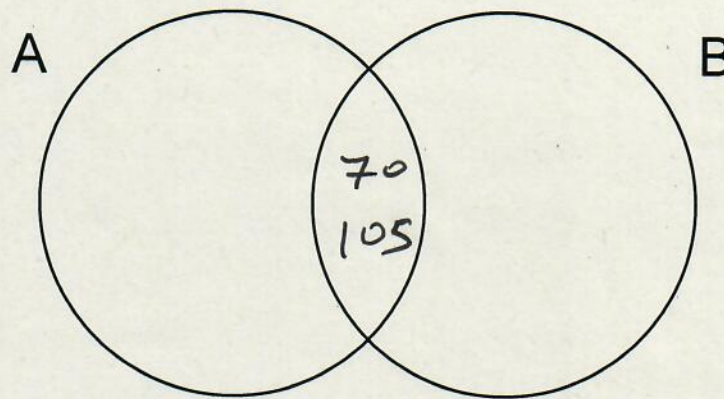
The middle section overlapping between A and B on the Venn diagram contains two numbers.

What are the two numbers?

$\boxed{70 \text{ and } 105}$

52 Michael notices that 60 = 41 + 19 and that 41 and 19 are both prime numbers.

What other prime numbers between 20 and 40 add to give 60?

$\begin{array}{r} 5\cancel{6}0 \\ -23 \\ \hline 37 \end{array}$

$\begin{array}{r} 5\cancel{6}0 \\ -29 \\ \hline 31 \end{array}$

$\boxed{\begin{array}{c} 23 + 37 \checkmark \\ or \\ 29 + 31 \checkmark \end{array}}$

53

A number is a palindrome if it looks the same backwards as forwards. For example, the three numbers: 232, 16061 and 11311 are all palindromes.

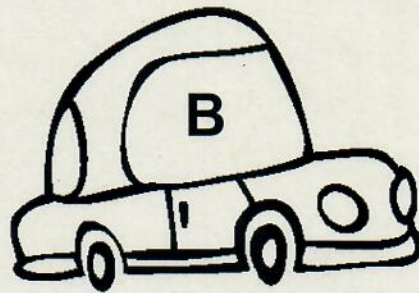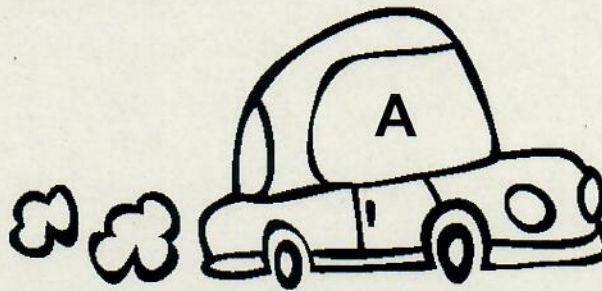**How many palindromes are there between 250 and 330?**

$$252 = 1 \quad 303 = 6$$
$$262 = 2 \quad 313 = 7$$
$$272 = 3 \quad 323 = 8$$
$$282 = 4$$
$$292 = 5$$

← or →

$$\begin{array}{r} \overset{2}{\cancel{3}}\overset{1}{3}0 \\ -\ 250 \\ \hline 08\cancel{0} \end{array}$$

$\boxed{8}$

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Car A takes 5 minutes to travel 3km.
Car B takes 7 minutes to travel 3km.
The cars are raced on a long straight road.
They both start from the same place and at the same time.

How far apart are the cars after 35 minutes?

$$\underline{A}$$
$$\left(\times 7 \; \begin{array}{l} 5mins = 3km \\ 35mins = \boxed{21km} \end{array} \right) \times 7$$

$$\underline{B}$$
$$\times 5 \left(\begin{array}{l} 7m = 3km \\ 35m = \boxed{15km} \end{array} \right) \times 5$$

$$21 - 15 = 6$$
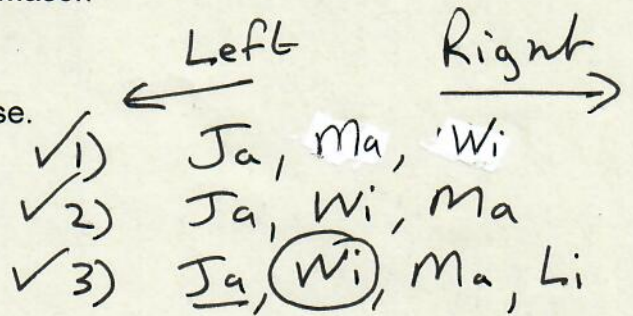
$\boxed{6km}$

Please go onto the next page >>>

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Liam, Mason, Jacob and William stand next to each other in a straight line.

1) - Jacob stands to the left of William and Mason

2) - Mason stands to the right of William

3) - Liam stands to the right of everyone else.

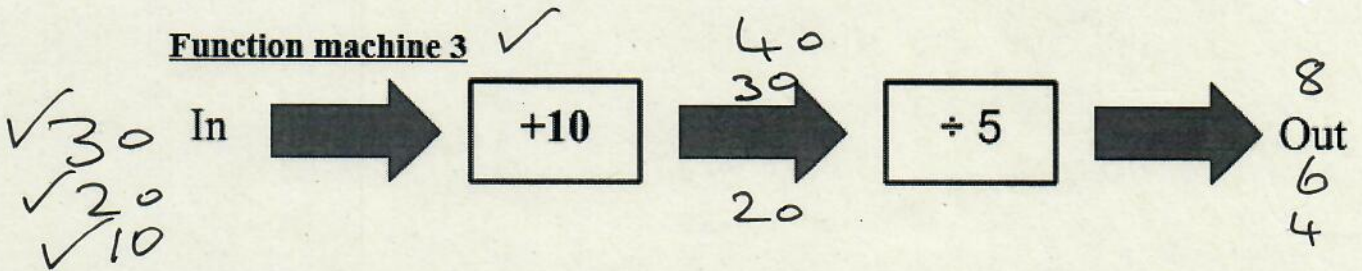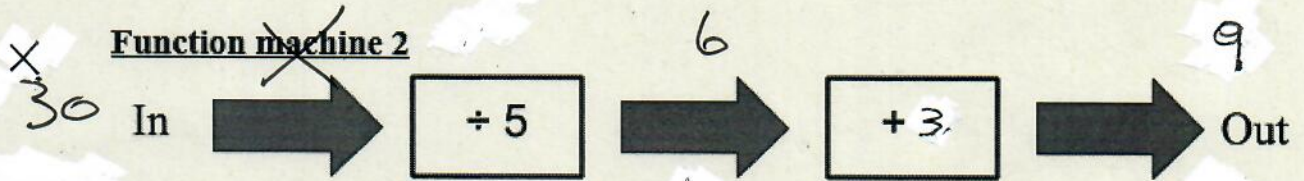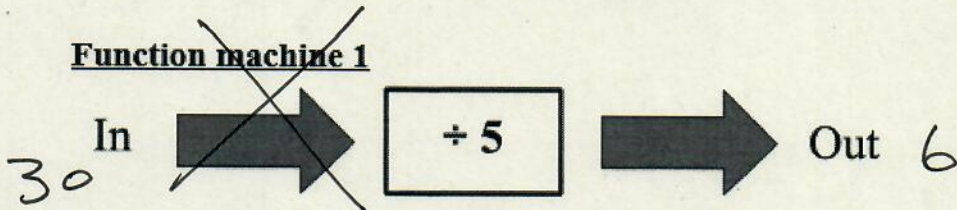**Who stands next to Jacob?**

William

Left → Right

✓1) Ja, Ma, Wi

✓2) Ja, Wi, Ma

✓3) Ja, (Wi), Ma, Li

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Look at the three function machines below.

Function machine 1

30 In → ÷ 5 → Out 6

Function machine 2

×3 30 In → ÷ 5 → 6 → + 3 → Out 9

Function machine 3 ✓

✓30 In → +10 → 40 39 20 → ÷ 5 → Out 8 6 4
✓20
✓10

Which of the function machines above (1-3) will produce the table below?

In	Out
30	8
20	6
10	4

Function Machine 3

END OF TEST