MATHEMATICS PRACTICE TEST 1 - NO CALCULATOR ALLOWED
(Suggested time: 60 minutes)

1.

```
  6942
+  786
───────

───────
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_____

2.

```
  5370
-   548
───────

───────
```

_____

3.

```
   739
x   54
───────

───────
```

_____

4.

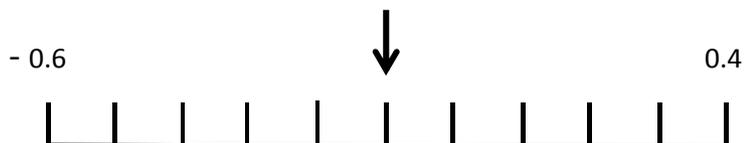Write the number that is twenty seven less than one hundred thousand
and eighteen.

_____

5.

What is the value at the arrow on this number line?
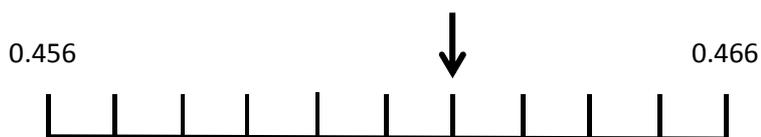
_____

0.456 0.466

What is the value at the arrow on this number line?

_____

- 0.6 0.4

What is the value at the arrow on this number line?

_____

0.853 0.863

Marks: ___ / 7

6.

Write the number between 133 and 157 which is divisible by both 8 and 9.   _____

7.

Arrange these numbers in order, from the smallest to the largest:

.765   nine tenths   3/5   .825   7/11

_____   _____   _____   _____   _____

8.

I think of a number, multiply it by 8, add 12 and then halve the total. I am left with 34.
What was the number I was thinking of?   _____

9.

x, y and z are three different numbers.
x + y + z = 100
The mean of x and y is 40.
The mean of y and z is 35.

x =   _____

y =   _____

z =   _____

10.

Bessie buys 600g of broccoli, 750g carrots, 250g peas and 2.5 kg potatoes.
The prices per kilo for these vegetables are:

         carrots   £2.20
         potatoes   £1.80
         peas   £3.40
         broccoli   £3.80

What change did Bessie receive from a £20 note?   £ _____

Bessie received her change in a note and three coins. What were they?

_____

11.

What is the value of x in this equation?
         91 - 6x = 19   _____

What is the value of x in this equation?
         8 + 4x = 71 - 3x   _____

Marks: ___ / 14

2

12.

Which of these letters have rotational symmetry?

O H L M N S Z   _____

13.

A school swimming pool is 50m long and 20m wide.

How many laps of the pool are swum in these races at the swimming gala?

1500 m freestyle   _____

4 x 100m butterfly relay   _____

The pool has 8 lanes.

How many metres wide is each lane?   _____ m

The swimming coach walks the perimeter of the pool 7 times during the swimming gala.

How many kilometres did he walk?   _____ km

14.

What time is exactly an hour and a quarter before 12.05 p.m.?   _____

15.

The time in Christchurch, New Zealand is 12 hours ahead of the time in London.

I catch a plane from London to Christchurch on 30th November at 10.30 pm. It takes 26 hours of flight time to get to Christchurch, with 2 hours spent in Singapore while the plane refuels.

What day and time do I arrive in Christchurch?   day   _____

                                                                                                         time   _____

As soon as I land in Christchurch, I ring my friend in Chicago. Chicago is 6 hours behind London.

What day and time is it in Chicago when I ring my friend?

                                                                                                         day   _____

                                                                                                         time   _____

Marks: ____ / 10

3

16.

What is ψ?

$$\begin{array}{r} 5\ \psi \\ \times\quad\ \psi \\ \hline 5\ 3\ 1 \end{array}$$

_____

17.

A garden has a fence that is 144 metres long. The garden is twice as long as it is wide.
How long is the garden?   _____ m
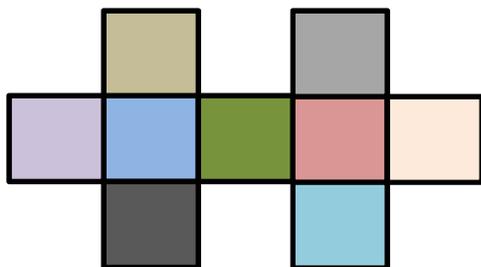
What is its area?   _____ m^2

18.

The shape below is made of nine identical squares.

The perimeter of this shape is 1.2 m.
What is the length of each side of one of these squares?   _____ cm

What is the total area of the shape?   _____ cm^2

19.

By how much is the product of 149 and 52 greater than their sum?   _____

20.

There are 36 dogs and cats in a boarding kennel. There are 6 more dogs than cats.
How many cats are there?   _____

21.

A train has 48 passengers on board.
At the first stop, three eighths of the passengers get off and another 15 passengers get on.
At the second stop, two fifths of those remaining get off and 3 passengers get on.
At the third stop, two thirds of those remaining get off and no-one gets on.
The fourth stop is the last stop and all the remaining passengers get off the train.
How many passengers get off the train at the last stop?   _____

22.

What is the difference between 20% of 230 and 15% of 260?   _____

23.

In an Italian restaurant, 60% of the customers order pizza.

Of the customers who order pizza, 25% also order gelati.

Of these customers, 40% order chocolate-flavoured gelati.

What percentage of customers order both pizza and chocolate-flavoured gelati?   _____ %

24.

The temperatures in London this week were:

Monday   24⁰
Tuesday   27⁰
Wednesday   25⁰
Thursday   23⁰
Friday   24⁰
Saturday   26⁰
Sunday   26⁰

What was the average temperature for the week?   _____ ^{o}

Assuming the other days remained the same, what would the temperature have

needed to be on Thursday to increase this average by 1⁰?   _____ ^{o}

25.

Tracey is taking some letters from a bag of Scrabble letters.

In the bag are these tiles:

A H R E U M C A F P

What is the probability of Tracey pulling an A from the bag?   _____ %

What is the probability of Tracey pulling a vowel from the bag?   _____ %

Tracey pulls the E and one of the two A tiles from the bag. The eight other tiles remain.

Then Tracey pulls another letter from the bag.

Now what is the probability of this letter being an A?   _____ %

Now what is the probability of this letter being a vowel?   _____ %

26.

Three whole numbers are multiplied together. The product is 163,212.

The first two numbers are 42 and 67. What is the third number?   _____

Marks: ____ / 9

27.

In a maths test, I mistakenly multiplied a number by 13 when I should have divided it.
My result was 2028. What should my result have been?   _____

28.

These are the exchange rates for the British Pound when I change my money to go on holiday:

£1.00 = 1.17 Euros   £1.00 = 1.60 US Dollars   £1.00 = 150 Japanese Yen

I change £100 for Japanese Yen. How many Yen do I receive?   _____ Yen
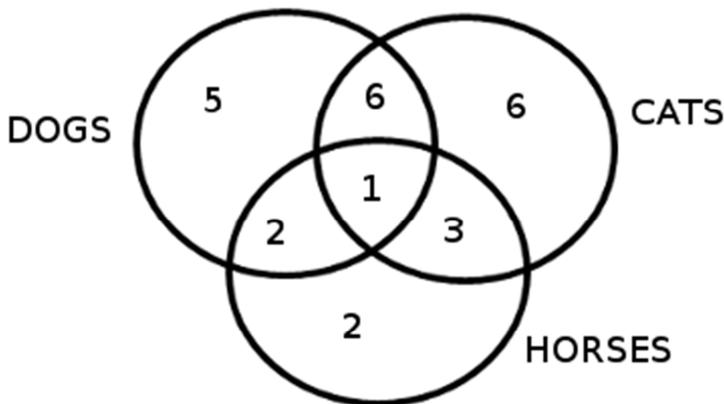
I change some money into US Dollars. I have 400 Dollars.
How many pounds did I change?   £ _____

I need 274 Euros for my train fare. I have 40 Euros already.
How many pounds do I need to change?   £ _____

I have £43.00 left. I decide to buy some more Yen.
How many Yen can I buy with £43.00?   _____ Yen

29.

The children in my class made a Venn diagram showing their pets.
This is the result:

How many children have a dog?   _____

How many children have both a dog and a cat?   _____

How many children own all three animals?   _____

How many children are there in the class?   _____

What is the most commonly owned animal?   _____

Marks: ___ / 10

6

30.

A clock reads 6.30 pm. What is the angle between the hour hand and the minute hand
     on this clock?   _____ °

If the time changes to 7.05 pm, how many degrees will the minute hand have moved?

_____ °

Marks: ___ / 2

TOTAL MARKS   _____ / 60

(Multiply your mark by 1.67 for percentage mark.)   (_____ %)