TRINITY SCHOOL CROYDON

ENTRANCE EXAMINATION PRACTICE QUESTIONS 11+

MATHEMATICS

When completing your exam, you should:

- Try all the questions.
- Show your working in the space provided. Do not rub out any working unless you wish to change it.
- Write your answers on the answer line provided.
- Do not write in any margins.
- Correct answers may not be awarded full marks if unsupported by relevant working.

Calculators are NOT allowed.

1. Helen buys seven tins of cola and she receives £4.05 change from £10. How much does one tin of cola cost? Give your answer in pence.

....

(3 marks)

2. In a new office building there are 80 doors. Each door is fastened by 3 hinges. If each hinge requires 5 screws, what is the total number of screws required to fit all the doors?

....

(3 marks)

3. This calculation is correct: $257 \times 368 = 94576$

Use this result to answer these questions:

a) 2.57×3.68

....

b) 0.257×368

....

c) 25.7×3680

....

d) $9457.6 \div 2570$

....

(4 marks)

4.

Aberdeen								
513	**Bristol**							
473	171	**Cambridge**						
595	206	124	**Dover**					
587	83	250	244	**Exeter**				
482	54	153	224	128	**Hereford**			
279	236	252	355	310	204	**Kendal**		
328	219	147	272	294	188	72	**Leeds**	
388	185	94	219	259	153	177	142	**Lincoln**

Distances in kilometres.

The table shows the distance between some British towns. It shows that the distance between Bristol and Kendal is 236 km.

a) How far is it from Leeds to Dover?

....

b) What are the closest two towns on the chart?

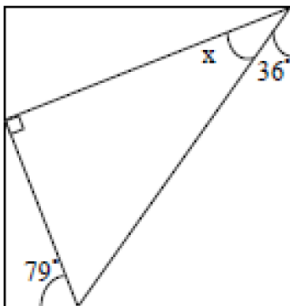...

c) I live in Dover but need to visit my son in Lincoln and from there to my daughter in Leeds before returning directly home. What total distance will I travel?

....

(5 marks)

5. Here is a right angled triangle inside a rectangle. Calculate the value of angle x. (Do not use a protractor or angle measurer, **the diagram is not drawn to scale**.)
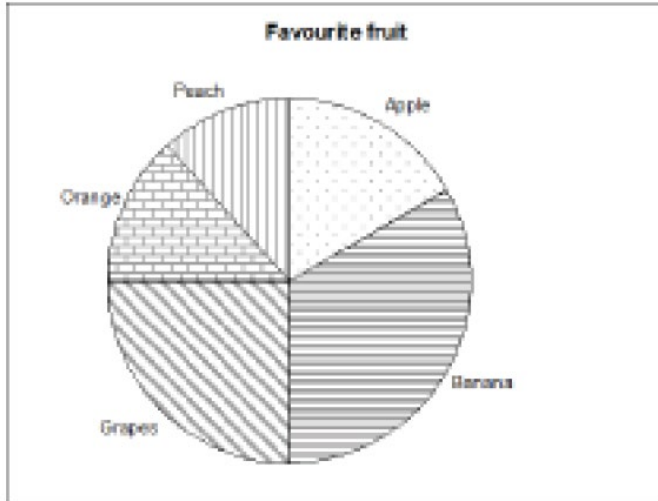
....

(4 marks)

6. The Pie Chart, which is not to scale shows the favourite fruit of a group of 120 children.

a) The angle for apple is 45°, how many children said apple was their favourite fruit?

....

b) Half of the group said that either apple or banana was their favourite. How many children said banana was their favourite fruit?

....

c) The angle for grapes is 90° and 2 more children preferred orange to peach. What should be the angle for peach?

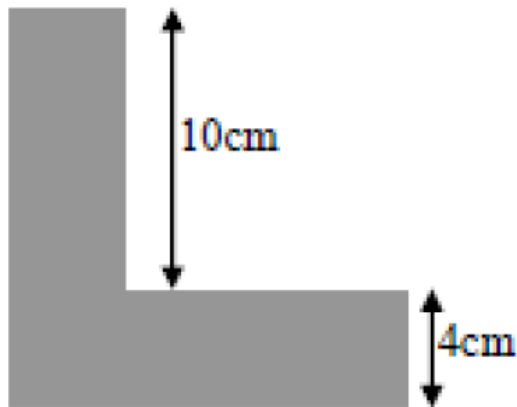...

(6 marks)

7. This L shape has one line of symmetry and was made be removing a **square** from a corner of a **square** piece of card. What is the area of the L shape?

Not to scale

10cm

4cm

.... cm^2

(4 marks)

8. A jar with 5 chocolates in it has mass 185g and the same jar with 17 chocolates in it has mass 317g.
What is the mass of the jar with 10 chocolates in it?

....

(5 marks)

9. The buddy of a number is found by doubling the number and subtracting the result from 24.
   e.g. the buddy of 9 is 24 − 18 = 6

   a) Find the buddy of 13.

   ....

   b) Find the number whose buddy is 19

   ....

   c) Find the number that is its own buddy.

   ....
   (6 marks)

10. Sylwia makes a sequence of four numbers finishing with 80.
    She gets the **next number** in the sequence **by multiplying by 3 and adding 2 each time**.

    a) Find the three numbers that come before 80 in her sequence.

    80

    b) Simeon makes a sequence of numbers starting with 284.
       To get the **next number**, he divides by 4 and then adds the same amount each time.
       The second number is 76.
       Write down the **next two** numbers in his sequence.

       284   76   ....

    c) Maya makes a sequence of five numbers starting with 107.
       She subtracts the same amount each time. Her last number is 35.
       Write down the missing three numbers in her sequence

       107   35
       (6 marks)

11. Gill is now 27 and has moved into a new flat. She has four pictures to hang in a horizontal row on a wall which is 4800 mm wide. The pictures are identical in size and are 420 mm wide. Gill hangs the first two pictures so that one is on the extreme left of the wall and one is on the extreme right of the wall. She wants to hang the remaining two pictures so that all four pictures are equally spaced. How far should Gill place the centre of each of the two remaining pictures from a vertical line down the centre of the wall?

....
(4 marks)

END OF TEST

TRINITY

Answers:

1. 85p
2. 1200
3. a) 9.4576 b) 94.576   c) 94576   d) 3.68
4. a) 272 km b) Bristol & Hereford c) 633 km
5. 43°
6. a) 15   b) 45   c) 42°
7. 96 cm²
8. 240g
9. a) −2   b) −14   c) 8
10. a) 2, 8, 26 b) 24, 11   c) 89, 71, 53
11. 730mm