

THE LIVERPOOL BLUE COAT SCHOOL

EXEMPLAR MATERIAL

MATHEMATICS

DATE OF BIRTH: _____

e.g. 10.9.03

CANDIDATE NUMBER: _____

e.g. 0007

PLEASE CHECK THAT YOU HAVE 4 PAGES

- Calculators must not be used during this examination.
- Attempt as many questions as you can.
- Write each answer on the question paper in the space provided using a pen.
- You are advised to show all of your working out for each question in the space provided on the question paper.

Do your best to finish in the time allowed

PLEASE NOTE THAT THIS IS NOT A FULL TEST PAPER

1 Look at this list of numbers:

1 2 3 4 5 6 7 8 9 10

From these numbers write down

a) two factors of 15

_____ (2 marks)

b) two square numbers

_____ (2 marks)

2 Find the value of

a) 0.7×6

_____ (2 marks)

b) $413 \div 7$

_____ (2 marks)

3 I am thinking of a number. When I multiply this number by 3 and then add 5, I get 56. What is the number I am thinking of?

_____ (2 marks)

4 2^4 means $2 \times 2 \times 2 \times 2$. So $2^4 = 16$.

Find the value of 3^3 .

_____ (2 marks)

5 Fill in the next two numbers in each of the following sequences:

a) 2, 6, 10, 14, ____, ____

b) 2, 6, 18, 54, ____, ____

(4 marks)

6 Write each of the following as a fraction. You should cancel your fraction down as much as possible.

a) 30%

b) 0.28

(4 marks)

7 Write each of the following sets of numbers in order, starting with the smallest and finishing with the largest:

a) 0 -3 4 -6 2

b) 3.2 0.33 0.308 1.31 0.317

(4 marks)

8 In each of the following questions try and find out the value of the number shown by the ♣ symbol. (Not all of the answers are whole numbers.)

a) $13 + \clubsuit = 17$

$\clubsuit = \underline{\hspace{2cm}}$

(1 mark)

b) $3 \times \clubsuit + 1 = 10$

$\clubsuit = \underline{\hspace{2cm}}$

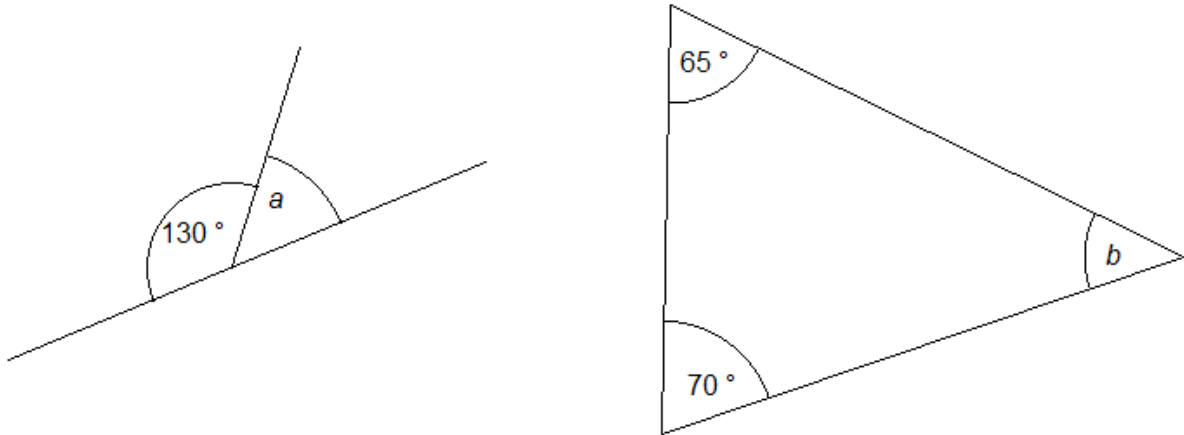
(2 marks)

c) $18 - 2 \times \clubsuit = 11$

$\clubsuit = \underline{\hspace{2cm}}$

(3 marks)

9 Find angles a and b in the following diagrams:



$a = \underline{\hspace{2cm}}$ $b = \underline{\hspace{2cm}}$

(2 marks)

10 The table below shows the distances between 3 cities.

Liverpool		
210 miles	London	
35 miles	200 miles	Manchester

a) How far is it from Liverpool to Manchester?

_____ (1 mark)

b) I drive from Liverpool to Manchester and then to London. How much further is this than driving from Liverpool straight to London?

_____ (2 marks)