



St Anselm's College Maths Sample Paper 2

45 mins

No Calculator Allowed

- 1) The speed of light is 186,000 miles per second. Write the speed of light in words.

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- 2) The speed of light is more accurately given as 299,792,458 metres per second. Write this speed of light in words.

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- 3) Look at the bus timetable below.

10, 10A New Brighton - Noctorum															
11 New Brighton - Arrowe Park Hospital															
Mondays to Fridays		11	11	11	11	11	10	10A			10	10A	10	10A	
1	New Brighton Kings Parade	0641	0709	0739	0809	0839	0909	0939			09	39	1509	1539	
2	Wallasey Central Library	0646	0715	0745	0815	0845	0915	0945			15	45	1515	1545	
3	Liscard Village	0650	0720	0750	0820	0850	0920	0950			20	50	1520	1550	
4	Birkenhead North Merseyrail station	0656	0726	0756	0826	0856	0926	0956	then at		26	56	1526	1556	
5	Cloughton Village	0701	0731	0801	0831	0901	0931	1001	these		31	01	1531	1601	
6	Bidston Road, Gerald Road	0706	0736	0806	0836	0906	0936	1006	minutes		36	06	until	1536	1606
7	Woodchurch Road, Holm Lane	0709	0739	0809	0839	0909		1009	past			09		1609	
8	Arrowe Park Hospital	0721	0751	0821	0851	0921		1021	each			21		1621	
9	Upton Village Ford Road							1027	hour			27		1627	
10	Upton railway station							1030				30		1630	
11	Noctorum Westway						0941	1034				41	34	1541	1634

- a) I need to catch a bus from Wallasey Central Library to arrive at Upton Village by 11:30am. Which number bus should I catch and at what time?

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- b) How many minutes does the 10A's journey from New Brighton to Noctorum take?

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4) I buy 22 items which cost £7.05 each.

a) What is the total cost?

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b) If you worked out the answer to part (a) on a calculator, what would the display show?

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5) I live 3.2 km from St Anselm's College.

a) How far is this in metres?

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b) One kilometre is five eighths of a mile. How many miles do I live from St Anselm's?

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6) I start watching a film at 6:55pm and turn the television off at 9:35pm.

a) For how long was I watching television?

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b) In total, a fifth of the time I spent watching television advertisements were being shown. What was the total time of all the advertisements?

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7) Solve the following:

a) I think of a number, divide it by 7 and subtract 3. The result is 6. What was the number I first thought of?

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b) There is a number, x . When I add 7 to x then multiply the answer by 8, the overall result is the same as just multiplying x by 22. What is x ?

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8) Write the next two numbers for each of the following sequences.

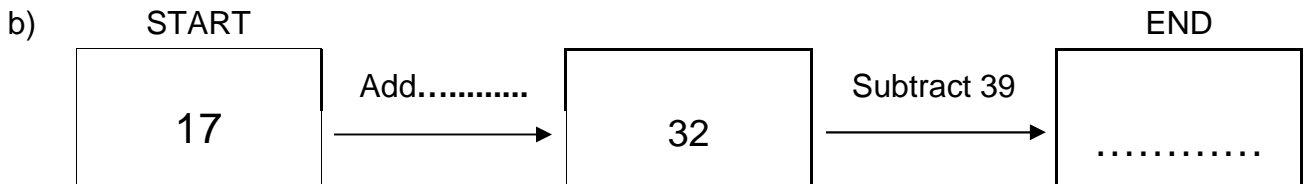
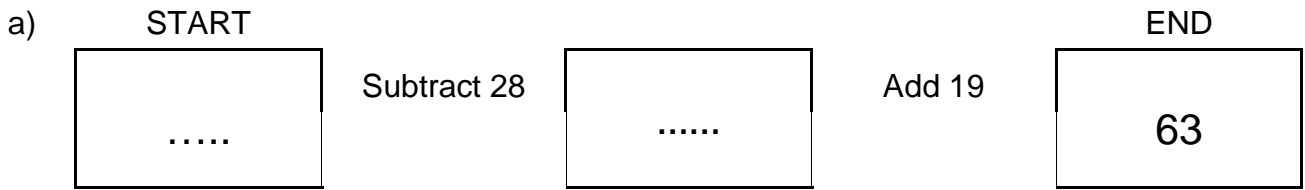
a) 3 10 17 24 31

b) 1 3 9 27 81

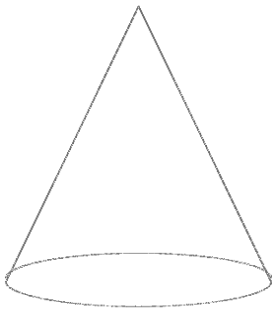
c) 3 4 6 10 18

d) 1 1 2 3 5 8

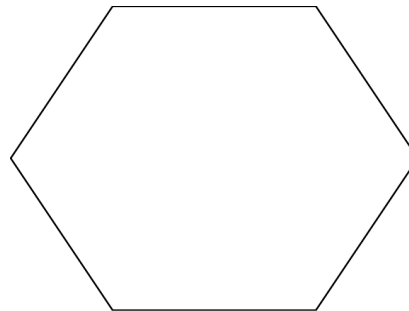
9) Complete the spaces shown by dotted lines below.



10) Write the name of the following shapes underneath them.

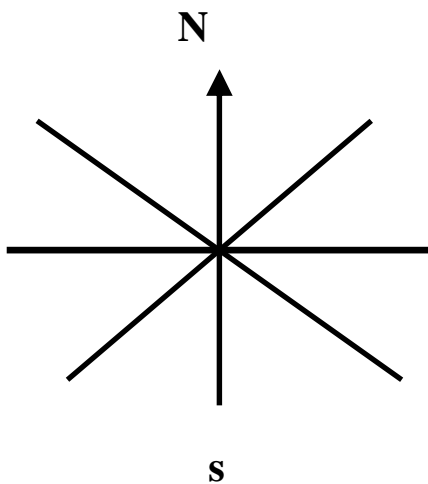


a)



b).....

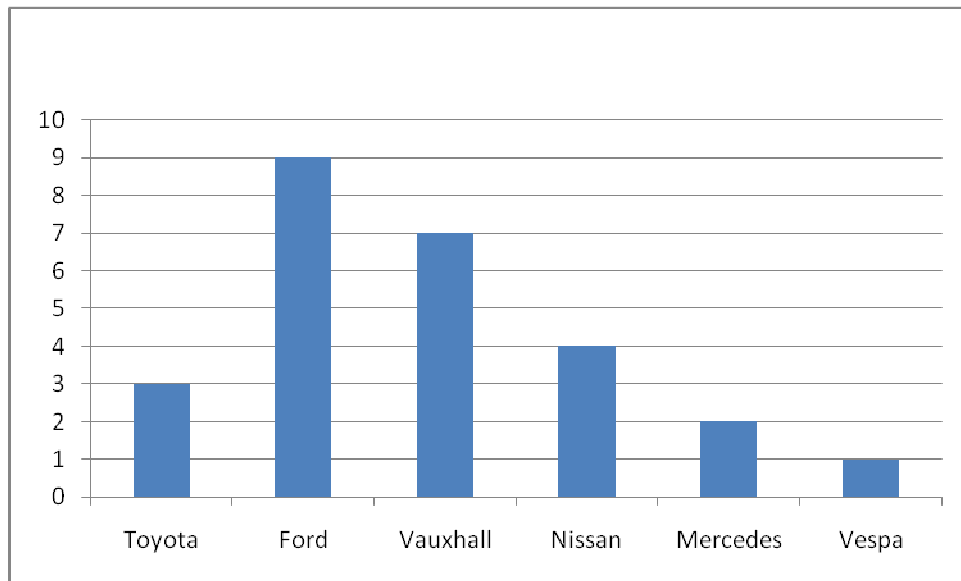
11) Complete the diagram to show the 8 points of the compass.



Imagine you are facing North East. If you turn through 135° clockwise, which way are you facing?

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12) Look at the chart below which shows the number of vehicles of different types in the car park of St Anselm's this morning.



a) How many Vauxhalls were in the car park?

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b) How many vehicles were in the car park altogether?

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c) Which type of vehicle is the mode?

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13) Tickets for the zoo cost £9.30 for adults and £6.40 for children.

a) How much would it cost for 6 adults to go to the zoo?

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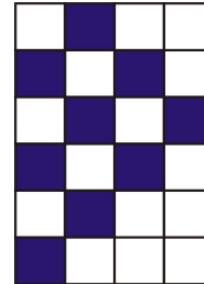
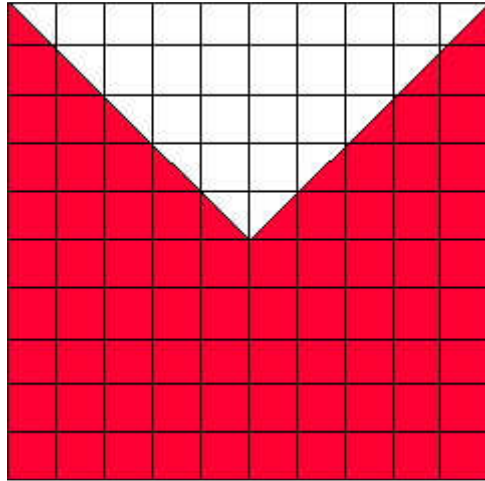
b) How much would it cost for 3 adults and 4 children?

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c) What is the maximum number of people that can go to the zoo for £30?

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14) Look at the grids below.



a) Which grid is more than 50% shaded, left or right?

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b) What percentage of the large grid on the left is shaded?

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c) What fraction of the small grid on the right is shaded?
Give your answer in its simplest form.

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15) In a tin of Roses, 8% are “Purple Ones” (hazelnut & caramel). If the tin has a total of 250 chocolates, how many are **not** Purple Ones?

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16) Round each of the following numbers to the accuracy given in brackets.

a) 29.8536 (nearest whole number)

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b) 170490 (nearest thousand)

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c) 45.1925487 (nearest tenth)

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17) Write the following numbers in order of size, starting with the smallest.

0.56 0.5 0.051 0.507 0.308

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18) If two fair dice are rolled and the two scores added, which of the following outcomes is **most** likely? Circle your answer.

a) A score of 7

b) A score of more than 10

c) A score that is an even number.

d) A score of 1.



19) I have a bag containing red, blue and white counters. A counter is chosen at random from the bag. There are 32 white counters in the bag and the probability of choosing a white counter is $\frac{1}{4}$. The bag contains 14 red counters. How many blue counters are there in the bag?

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20) Which of the following distances is the most likely height of a man? Circle your answer.

- a) 120 cm
- b) 150 mm
- c) 1.8 m
- d) 112 inches

21) A calculator normally costs £3.80. It is offered in a sale at 25% off. What is the sale price?

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22) Look at the list of numbers below.

6 12 15 49 52 53 169

a) Which of the numbers have an **odd** number of factors?

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b) Give another example of a number with an odd number of factors.

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c) These numbers have a special name. What is it?

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d) Which of the numbers is a prime number?

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23) Number $A = 7 \times$ Number B and Number $B = 3 \times$ Number C

a) What fraction of Number A is Number B ?

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b) How many times bigger than Number C is Number A ?

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c) What fraction of Number B is Number C ?

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d) Give three possible values of the numbers.

$A =$

$B =$

$C =$

24) In November 2006 Becky is two and a half times Anna's age and Mary is twice Anna's age.

In November 2009 Anna is half of Becky's age. Mary is six years older than Anna.

How old are the three girls in November 2009?

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