

St. Anselm's College
2010 Entrance Examination

Mathematics

Time allowed: 45 Minutes

Please print:

Name	Primary School	Date of Birth

PLEASE LISTEN CAREFULLY TO ALL INSTRUCTIONS.

PUT YOUR HAND UP IF YOU DO NOT UNDERSTAND SOMETHING.

YOU ARE NOT ALLOWED TO USE A CALCULATOR

Mental Arithmetic	Written Questions	Total Marks

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1) The closest the moon comes to earth is about 360,000 km. Write this distance in words.

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2) The furthest the moon is from earth is 405,696 km. Write this distance in words.

……

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3) Look at the train timetable below.

Ormskirk		0550		0620		0650
Aughton Park		0553		0623		0653
Town Green		0555		0625		0655
Maghull		0600		0630		0700
Old Roan		0603		0633		0703
Aintree		0605		0635		0705
Orrell Park		0607		0637		0707
Walton		0609		0639		0709
Kirkby	0548		0618		0648	
Fazakerley	0551		0621		0651	
Rice Lane	0554		0624		0654	
Kirkdale	0557	0612	0627	0642	0657	0712
Sandhills	0600	0614	0630	0644	0700	0714
Moorfields	0603	0618	0633	0648	0703	0718
Central	0606	0620	0636	0650	0706	0720

a) I need to catch a train from Fazakerley to ensure I arrive at Central before 0645. What time does the latest train I could catch leave Fazakerley?

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b) How many minutes does the train's journey from Town Green to Moorfields take?

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4) I buy 16 items which cost £19.95 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 12.8 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 television at 8:35pm and turn the television off at 12:20am.

a) For how long was I watching television?

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b) A third of the time I spent watching television was spent watching sport. What was the total time I spent watching sport?

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7) Solve the following:

a) I think of a number, multiply it by 9 and subtract 7. The result is 56. What was the number I first thought of?

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b) There is a number, x. When I add 3 to x then multiply the answer by 4, the overall result is the same as just multiplying x by 6. What is x?

…….

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

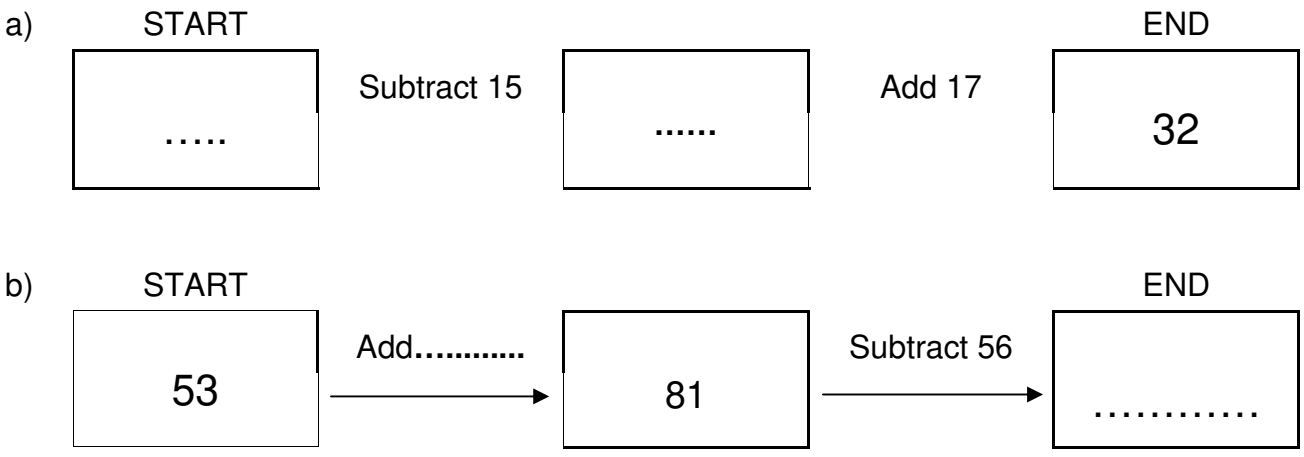
a) 3 8 13 18 23 ... ...

b) 1 2 4 8 16 ... ...

c) 1 2 5 14 41 … …

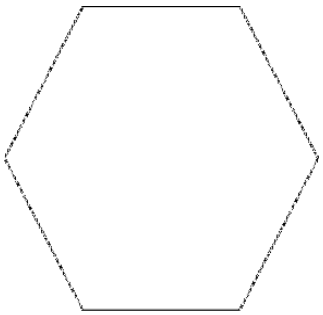
d) 1 -1 -3 -5 -7 -9 … …

9) Complete the spaces shown by dotted lines below.

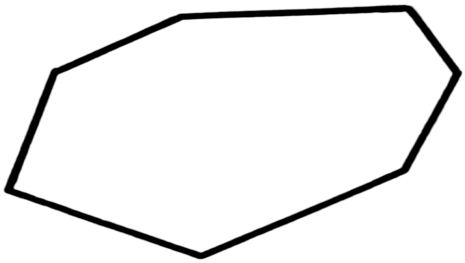


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10) Write the name of the following shapes underneath them.



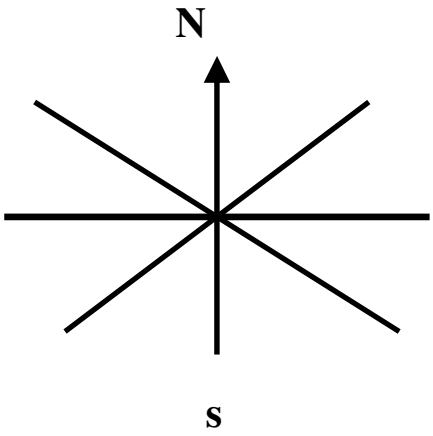
a) .....



b).....

b)

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

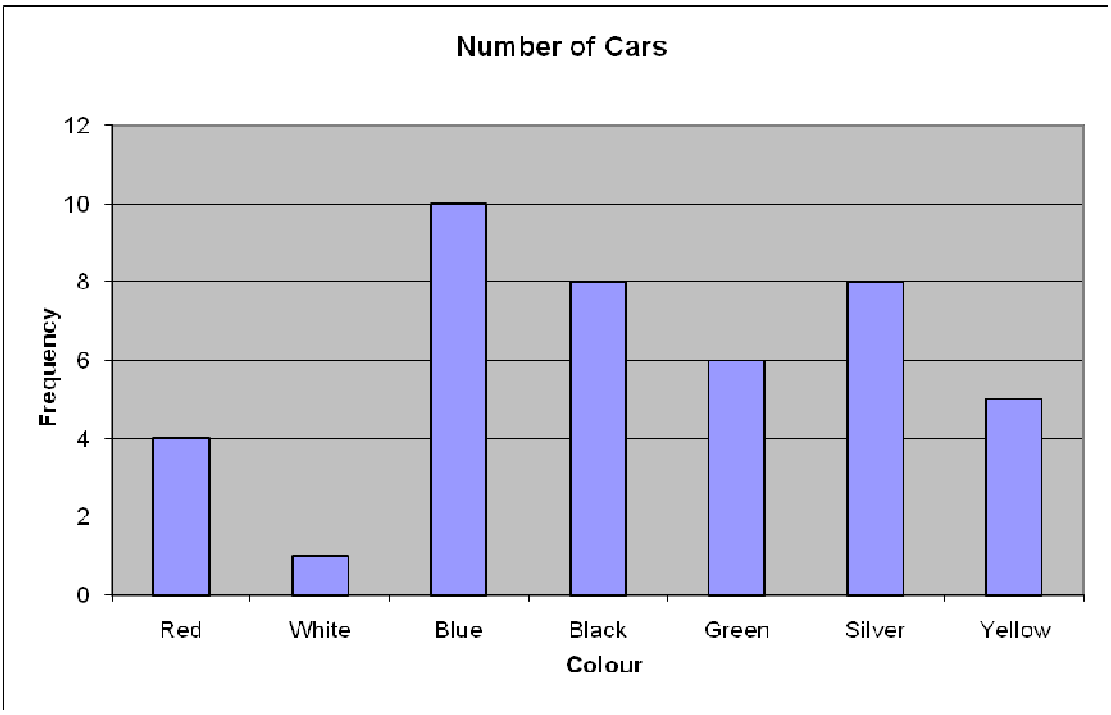


Imagine you are facing North East. If you turn through 315° anti-clockwise, which way are you facing?

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



a) How many yellow cars were in the car park?

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

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c) Which colour of car is the mode?

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13) Tickets for the cinema cost £6.60 for adults and £4.20 for children.

a) How much would it cost for 5 adults to go to the cinema?

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b) How much would it cost for 2 adults and 4 children?

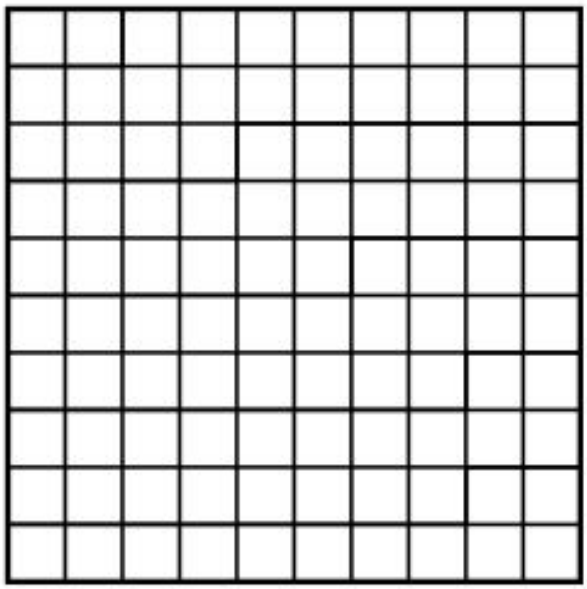
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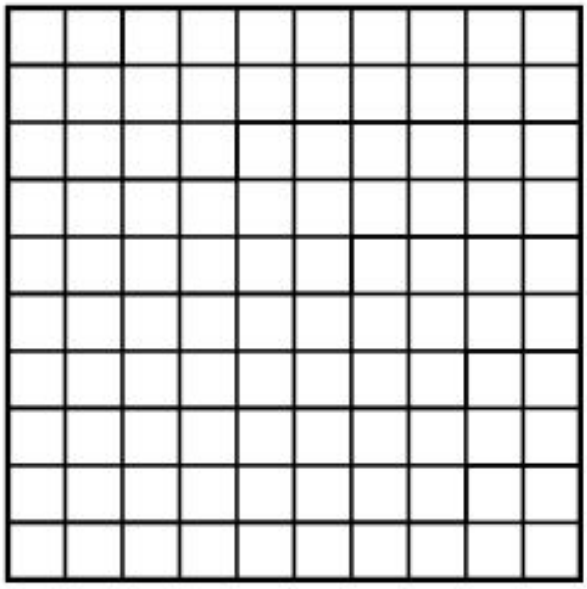
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14) Answer the questions on the next page using the grids below.





a) Shade the top grid so that one twentieth is shaded.

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b) Shade the bottom grid so that 70% is shaded.

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c) What fraction of the bottom grid have you shaded? Give your answer in its simplest form.

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15) In a tin of Roses, 5% are "Caramel Kegs". If the tin has a total of 120 chocolates, how many are **not** Caramel Kegs?

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

a) 52.689421 (nearest whole number)

……

b) 235499 (nearest thousand)

……

c) 52.32658941 (nearest hundredth)

……

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

0.65 0.6 0.065 0.605 0.0605

.....

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



a) A score of 8

b) A score of more than 10

c) A score that is an even number.

d) A score of 2.

19) I have a bag containing red, blue and white counters. A counter is chosen at random from the bag. There are 45 white counters in the bag and the probability of choosing a white counter is ¾. The bag contains 5 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 £5.60. 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.

8 25 32 48 52 59 150

a) Which of the numbers has 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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e) Which of the numbers is a cube number?

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23) Number A = 9 × Number B and Number B = 2 × 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?

……

d) Give three possible values of the numbers.

A = B = C =

24) In November 2010 Becky is two years older than Mary who is three times Anna's age.

In November 2011 Anna is one third of Becky's age. Mary is 12 years older than Anna.

How old are the three girls in November 2010?

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End of Test

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