Name: _____

IGCSE (9-1) Maths
topics new to Foundation tier:
Venn diagrams and probability

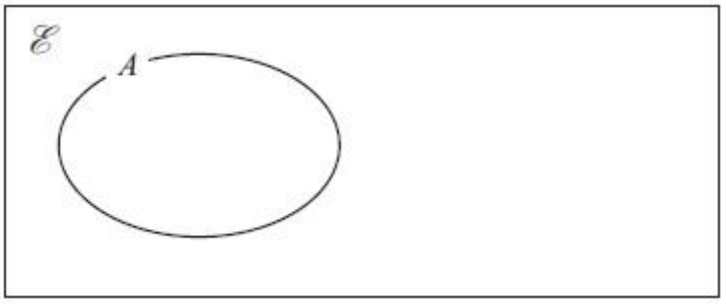
Date:

Time: 15 minutes

Total marks available: 11

Total marks achieved: _____

Q1. A, B and C are three sets.
$A \cap B = \varnothing$ and $C \subset A$



(*a*) Complete the Venn diagram to show the sets B and C

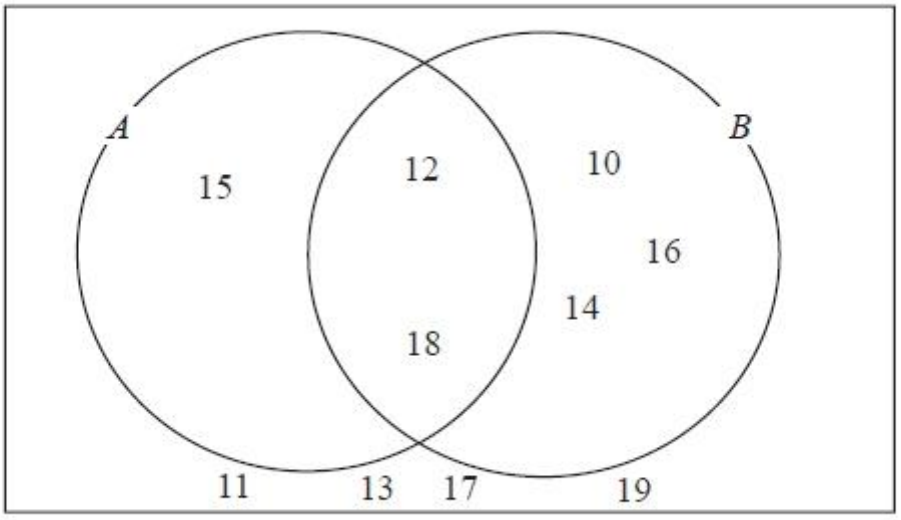
(2)

(*b*) On the Venn diagram, shade the region that represents $A \cap C'$

(1)

(Total 3 marks)

Q2. Here is a Venn diagram.



(*a*) Write down the numbers that are in set

(i) $A \cup B$

(ii) $A \cap B$

(2)

One of the numbers in the diagram is chosen at random.

(*b*) Find the probability that the number is in set A'

(2)

(Total 4 marks)

Q3. $\mathbf{E}$ = {1, 2, 3, 4, 5, 6, 7, 8, 9, 10}
A = {multiples of 2}
$A \cap B$ = {2, 6}
$A \cup B$ = {1, 2, 3, 4, 6, 8, 9, 10}

Draw a Venn diagram for this information.

(Total 4 marks)

Mark Scheme

Q1.

Question Number	Working	Answer	Mark	Notes
(a)	set B separate to A, set C within A		2	B1 B1 Set C has to be a unique set
(b)	outer ring between A and C shaded		1	B1ft Completely outside of C and within all of A. Set C has to be a unique set
				Total 3 marks

Q2.

Question	Working	Answer	Notes
(a)(i)		10, 12, 14, 15, 16, 18	B1 cao
(ii)		12, 18	B1 cao
(b)		$\frac{7}{10}$	M1 for 7 or indicating correct region or for 10, 14, 16, 11, 13, 17, 19 listed A1 for $\frac{7}{10}$ oe

Q3.

Paper 1MA1:3F			
Question	**Working**	**Answer**	**Notes**
		Venn diagram	M1 for two overlapping and labelled ovals M1 for 2 and 6 in the intersection M1 for 5 and 7 in the universal set only C1 for a fully correct Venn Diagram