SETS-SET-1

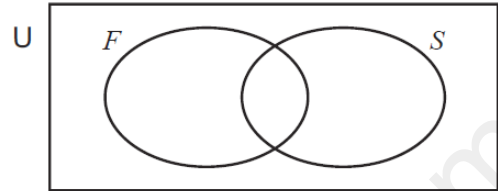|	
1	Sara records some information about the number of cars in a car park. U = {cars in the car park} F = {5-door cars} S = {silver cars}

Sara records some information about the number of cars in a car park.

U = {cars in the car park}

F = {5-door cars}

S = {silver cars}

You may use the Venn diagram to help you answer the following questions.

(a) n(U) = 12,   n(F) = 7,   n($F \cap S$) = 2 ,   n($F \cup S$) =11.

Find

(i)   n(S),

Answer(a)(i) _____ [1]

(ii)   n($S \cup F'$) .

Answer(a)(ii) _____ [1]

(b) Sara chooses a car from the car park at random.

Find the probability that it is a 5-door car.

Answer(b) _____ [1]

(c) Sara chooses a silver car at random.

Find the probability that it is a 5-door car.

Answer(c) _____ [1]

MS-1

(a)	**(i)**	6	**1**		
	(ii)	7	**1**		
(b)		$\dfrac{7}{12}$ oe	**1**		
(c)		$\dfrac{2}{6}$ oe	**1 ft**	If $\dfrac{2}{6}$ not seen, then ft their part **(a)(i)**	**[4]**

2
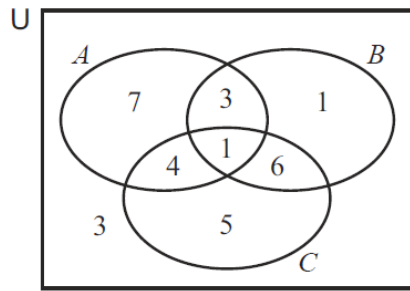
The Venn diagram shows the **number of elements** in each of the sets A, B and C, and n(U) = 30.

(a) Find

    (i) n(A),

<div align="right">*Answer(a)*(i) .... [1]</div>

    (ii) n$(C \cup B')$.

<div align="right">*Answer(a)*(ii) .... [1]</div>

(b) Shade the region $(A \cap B) \cup C$ on the Venn diagram.   [1] |

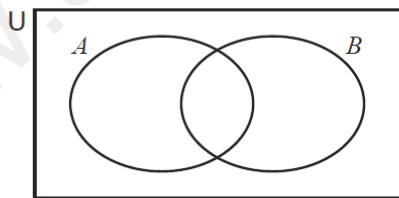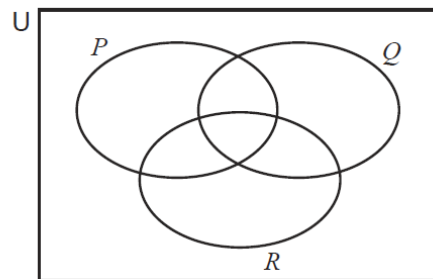| MS-2			
(a) **(i)**	15	**1**	
(ii)	26	**1**	
(b)		**1**	
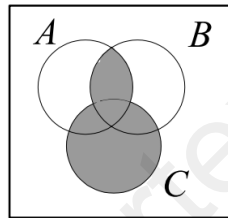
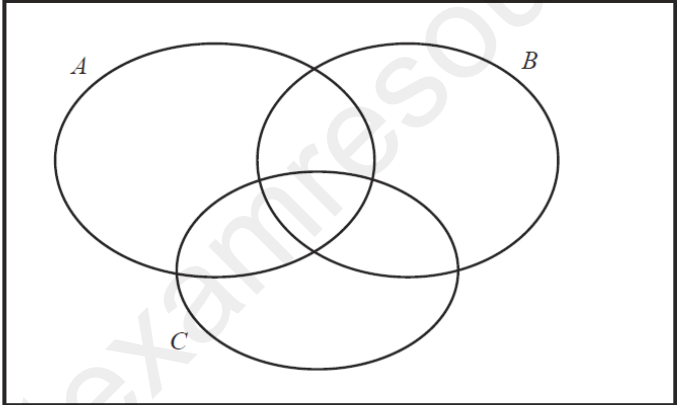|	
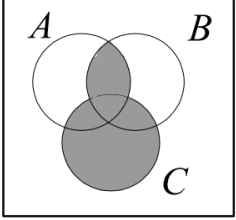| **3**	In each Venn diagram, shade the region indicated.
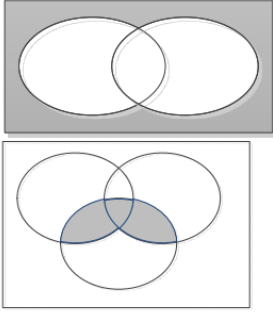
$(A \cup B)'$ $(P \cup Q) \cap R$

<div align="right">[2]</div> |

MS-3			
		2	**B1** for each

4	U = {integers from 1 to 12}

$A = \{1, 2, 4, 5, 12\}$
$B = \{2, 3, 4, 6, 10\}$
$C = \{1, 2, 8, 9, 10\}$

(a) Complete the Venn Diagram.

[2]

(b) Find $n(A \cap (B \cup C)')$.

.... [1]

MS-4			
	(a) **(i)** 15	**1**	
	(ii) 26	**1**	
	(b)	**1**	