1. Joe rolls a 6-sided dice and spins a 4-sided spinner.
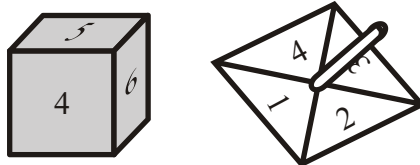
The dice is labelled 1, 2, 3, 4, 5, 6

The spinner is labelled 1, 2, 3, 4

Joe adds the score on the dice and the score on the spinner to get the total score.

He records the possible total scores in a table.

+	1	2	3	4	5	6
1	2	3	4	5	6	7
2	3					
3	4					
4	5					

(a) Complete the table of possible total scores.

(2)

(b) Write down all the ways in which Joe can get a total score of 5
One of them has been done for you.

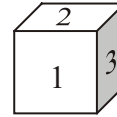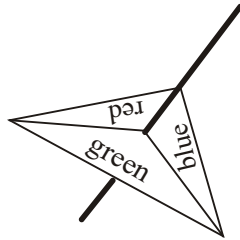(1, 4), ...

(2)

(c) Write down all the ways Joe can get a total score of 8 or more.

…………………......................................

(2)
(Total 6 marks)

2.   The diagram shows a 3-sided spinner and an ordinary dice.

The spinner has 1 green side, 1 blue side and 1 red side.

Alex spins the spinner once and rolls the dice once.

Write down all the possible outcomes.
One has already been done for you.

(g, 1) ....

....

....

(Total 2 marks)

01.   (a)   4 5 6 7 8   2
             5 6 7 8 9
             6 7 8 9 10

             B2 if fully correct

             (B1 for 1 row correct or 2 columns correct)

        (b)   (1, 4); (2, 3); (3, 2); (4, 1)   2

             B2 if fully correct

             (B1 for either (2, 3) or (3, 2))

        (c)   (2, 6); (3, 5); (3, 6); (4, 4); (4, 5); (4, 6)   2

             B2 if fully correct (order in brackets need not be consistent)
             (B1 for 3 pairs correct, ignore extras)

                                                                                     [6]

02.   (g,1) (g,2) (g,3) (g,4) (g,5) (g,6) (b,1) (b,2)(b,3) (b,4) (b,5) (b,6)
(r,1) (r,2) (r,3) (r,4) (r,5) (r,6)   2
B2 for a fully correct list
[B1 for at least 6 correct additional outcomes]
Ignore duplicates e.g. (g,1) (1, g)

[2]

01.   Foundation Tier

This question was well understood and candidates usually obtained full marks in part (a) though in parts (b) and (c) candidates usually only wrote down partial solutions.

Intermediate Tier

Part (a) was answered very well indeed. Almost three quarters of the candidates were successful in part (b). Some candidates only gave either (2, 3) or (3, 2) for the answer, not appreciating that (dice 2, spinner 3) is different from (dice 3, spinner 2). Almost all candidates were able to list at least three correct pairs in part (c). Some repeated pairs in reverse order, e.g. (2, 6) and (6, 2), despite 4 being the highest number on the spinner, and some failed to list all the pairs. Some candidates ignored "or more" and only listed the three pairs that give a score of 8. It was common to see pairs such as (1, 7) that included impossible values.

02.   This question proved to be very successful with 55% of candidates being able to write out the missing 17 combinations successfully. One mark was obtained by 25% of candidates that could give an additional 6 outcomes but 20% scored no marks. Interestingly a significant number of candidates thought there were only 3 numbers on the dice since only 1, 2 and 3 were shown in the diagram. The most successful candidates gave their combinations in an ordered fashion, either by all the greens followed by all the blues followed by all the reds or by all the ones, all the twos etc.