HIGHER

6.3 The Product Rule for Counting: 10-minute Pack

Total Marks

EDEXCEL 1MA1 · Calculator allowed · about 10 minutes

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 A cafe has 3 different starters and 2 different desserts.
Work out the number of different ways Tom can choose one starter and one dessert.

(Total for Question 1 is 1 mark)

---

2 Sam rolls two ordinary six-sided dice, one red and one blue.
Work out the number of different outcomes possible.

(Total for Question 2 is 1 mark)

---

3 A cafe sells sandwiches with a choice of 4 types of bread and 3 types of filling. Each sandwich has exactly one type of bread and one filling.
Work out the total number of different sandwiches possible.

(Total for Question 3 is 2 marks)

© Revision Library | revisionlibrary.co.uk

4 An ice cream van sells 5 flavours, 3 types of cone and 2 toppings.
Work out the number of different ice creams that can be made by choosing one flavour, one cone and one topping.

(Total for Question 4 is 2 marks)

---

5 The digits 1, 2, 3, 4 and 5 are each used once to form a three-digit number. For example, 231 is a possible number.
Work out how many of these three-digit numbers are even.

(Total for Question 5 is 3 marks)

© Revision Library | revisionlibrary.co.uk

Mark scheme · 6.3 The Product Rule for Counting: 10-minute Pack

A correct answer earns full marks unless the question asks for working, a method, proof or explanation.

Question 1

6 cao	**B1**

Answer: 6

Question 2

36 cao	**B1**

Answer: 36

Question 3

4 x 3 oe seen	**M1**
12 cao	**A1**

Answer: 12

Question 4

5 * 3 * 2 oe seen	**M1**
30 cao	**A1**

Answer: 30

Question 5

identifies 2 choices for the units digit (2 or 4)	**M1**
(dep) 4 x 3 for the remaining two digits, in either order	**M1**
24 cao	**A1**

Answer: 24

© Revision Library | revisionlibrary.co.uk