Maths Revision Booklet
for CCEA GCSE 2-tier specification

M7

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Contents

Revision Exercise 1A   (non-calculator)

You must not use a calculator for this paper. Total mark for this paper is 50.
Figures in brackets printed down the right-hand side of pages indicate the marks awarded to each
question or part question.
You should have a ruler, compasses, set-square and protractor.

1. Put the following fractions in ascending order:

½ , ⅔ , ¼ , ⁵⁄₁₂

Answer _____ , _____ , _____ , _____ [2]

2. A fair dice is tossed once.
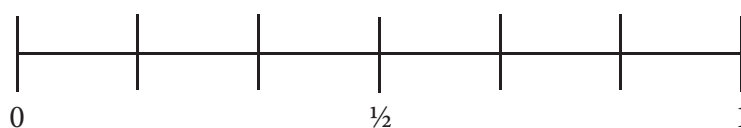Four different outcomes are given below:

Outcome A: getting a 7 on the dice.
Outcome B: getting a 3 on the dice.
Outcome C: getting a prime number on the dice.
Outcome D: getting a number less than 5.

Write the correct letter A, B, C or D opposite the probability of that outcome happening on the scale below.

0   ½   1

[4]

3. **(a)** Estimate $\sqrt{39}$

Answer _____ [1]

(b) The length of a toy car is 8.6 cm correct to one decimal place.
What is the maximum total length of 4 of these toy cars?

Answer _____ cm [2]

4. The parking charges at a city centre park are 55 pence per hour.

   (a) Michael pays £2.75 to park his car.
   How many hours did he pay for?

   Answer _____ hours [2]

   The parking meter takes the following coins:
   £2, £1, 50p, 20p, 10p, 5p

   (b) What is the least number of coins he can use to pay the exact amount £2.75?
   Show your working.

   Answer _____ coins [2]

   (c) Michael uses **exactly** 6 coins to pay.
   Show **three** different ways he could have paid.

   Answer _____ , _____ , _____[3]

5. Using a ruler and compasses only, construct an equilateral triangle of side 8 cm.

[3]

6. A restaurant has a 3 course menu with 6 starters, 8 main courses and 5 desserts.
    (a) How many different combinations are available if a customer chooses a starter, a main course and a dessert?

Answer _____ [2]

    (b) A customer who is not very hungry decides to order only 2 courses.
       Does she have a greater choice of combinations now than had she ordered 3 courses?
       Show all your working.

Answer _____ because _____ [3]

7. A box contains a total of 4 balls; some are green and the rest are pink.
    A ball is chosen at random and is then replaced before choosing again.
    Given that the probability of choosing 2 green balls = $\frac{1}{16}$, how many green balls are there in the box?

Answer _____ [3]

8. Orange paint can be made by mixing 3 parts red paint with 5 parts yellow paint, i.e. ratio 3:5
    A painter has 12 litres of red paint and 25 litres of yellow paint.
    What is the maximum amount of orange paint that she can make?

Answer _____ litres [3]