

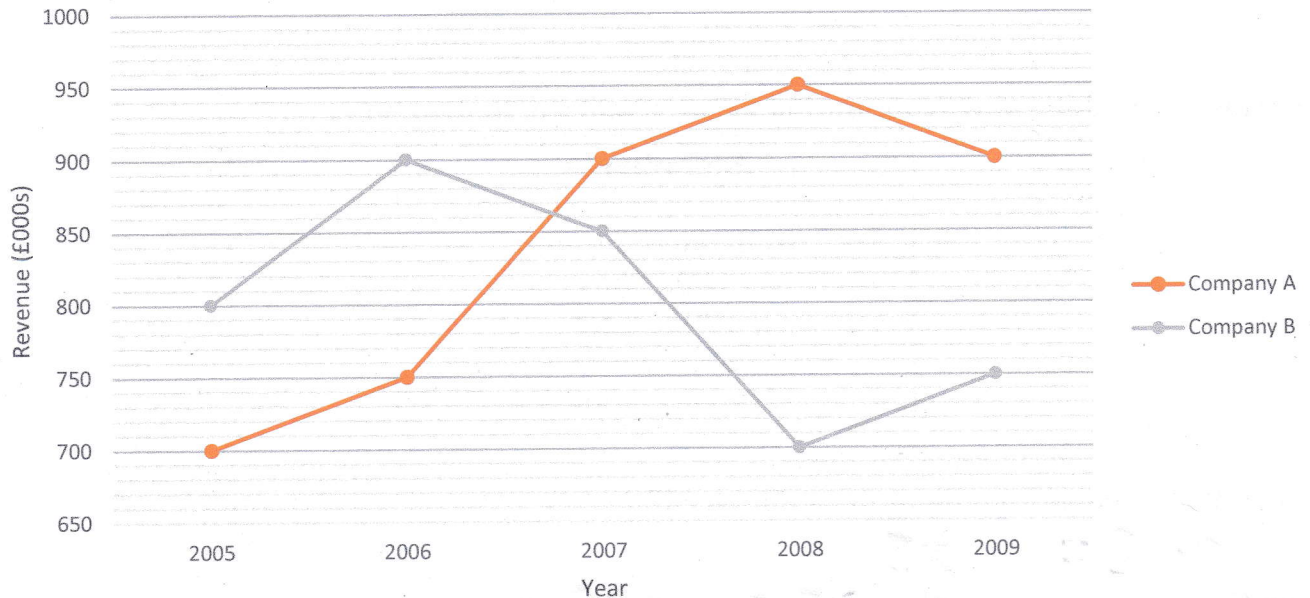
**FOUNDATION TIER
MINI PRACTICE EXAM 8**

**CALCULATOR ALLOWED
20 MINUTES ALLOWED**



1.

The line graph below shows the yearly revenues of two companies.



(a) What was Company A's revenue in 2005?

£700,000

(1)

(b) What was the difference in the companies' revenues in 2008?

£250,000

(1)

(c) What was the percentage increase of Company A's revenue from 2006 to 2007?

$$\frac{900 - 750}{750} \times 100 = \underline{20\%}$$

(2)

2.

Last month, a shop sold 450 shirts.

The ratio of shirts sold to blazers sold to hoodies sold was 6:1:3.

How many more hoodies were sold than blazers?

$$450 \div 6 = 75 = 1 \text{ part}$$

$$\text{Blazers} = 1 \times 75 = 75$$

$$\text{Hoodies} = 3 \times 75 = 225$$

$$225 - 75 = \underline{150}$$

(4)

3.
 Bianca is thinking of two numbers.
 Both numbers are multiples of 13.
 The two numbers have a sum of 91 and a difference of 39.
 Write down the two numbers Bianca is thinking of.

65 and 26

(2)

4.
 Charlotte is making chocolate muffins. She reads the instructions.

Ingredients
To make 8 muffins:
160g flour
180g sugar
200g butter
120g cocoa powder

Charlotte wants to make 50 muffins.
 How much of each ingredient does she need?

$$50 \div 8 = 6.25$$

$$\text{Flour} = 160 \times 6.25 = 1,000 \text{ g}$$

$$\text{Sugar} = 180 \times 6.25 = 1,125 \text{ g}$$

$$\text{Butter} = 200 \times 6.25 = 1,250 \text{ g}$$

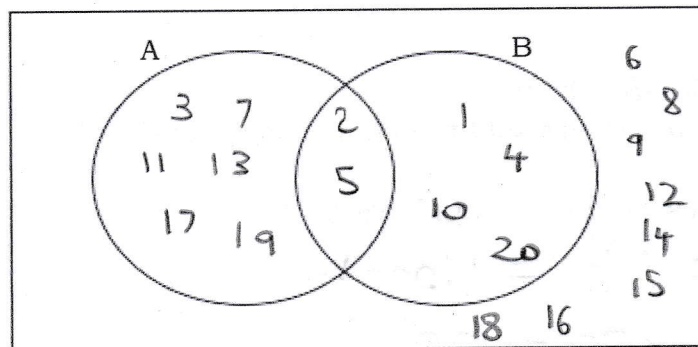
$$\text{Cocoa} = 120 \times 6.25 = 750 \text{ g}$$

(4)

5.

ξ = all positive integers less than 21 = 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20
 A = all prime numbers less than 21 = 2, 3, 5, 7, 11, 13, 17, 19
 B = all factors of 20 = 1, 2, 4, 5, 10, 20

(a) Complete the Venn diagram below.



(5)

(b) Find $P(A \cup B)$.

$$\frac{12}{20} = \left(\frac{3}{5} \right)$$

(1)