

**AQA, OCR, Edexcel**

**GCSE**

# GCSE Maths

## Venn Diagrams Questions

Name:

**M**

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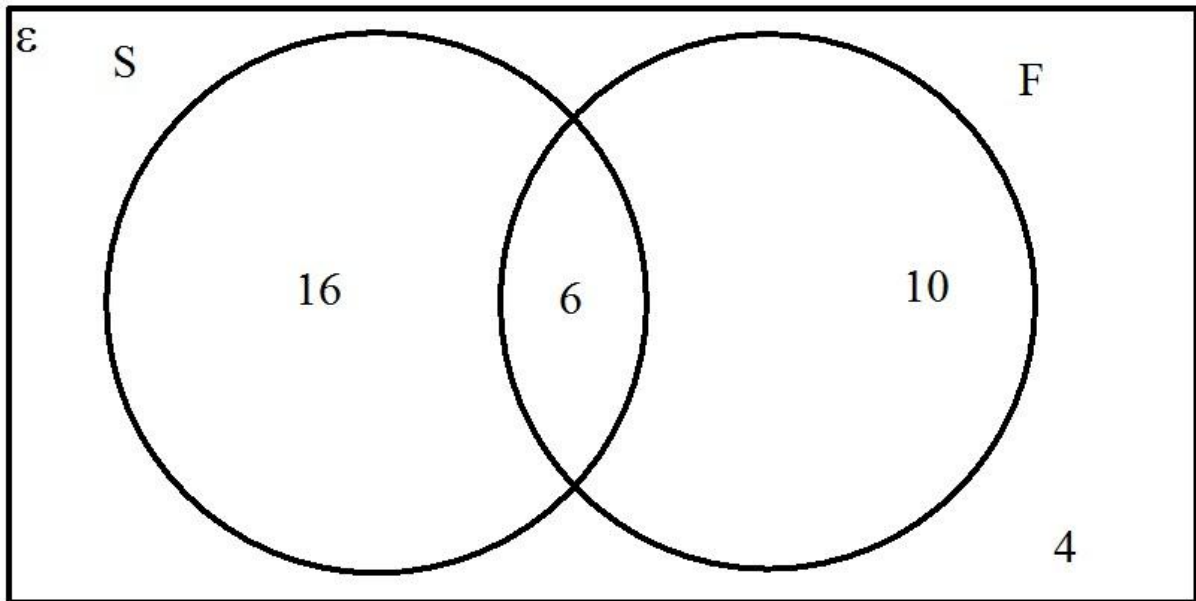
**E**

Mathsmadeeasy.co.uk

Total Marks: /24

## Venn Diagrams

1. The Venn diagram below shows the number of year 9 pupils which selected either French (F) or Spanish (S) GCSE.



Use the diagram to find the probability what a randomly selected pupil is:

- a. Not studying French GCSE

(2 marks)

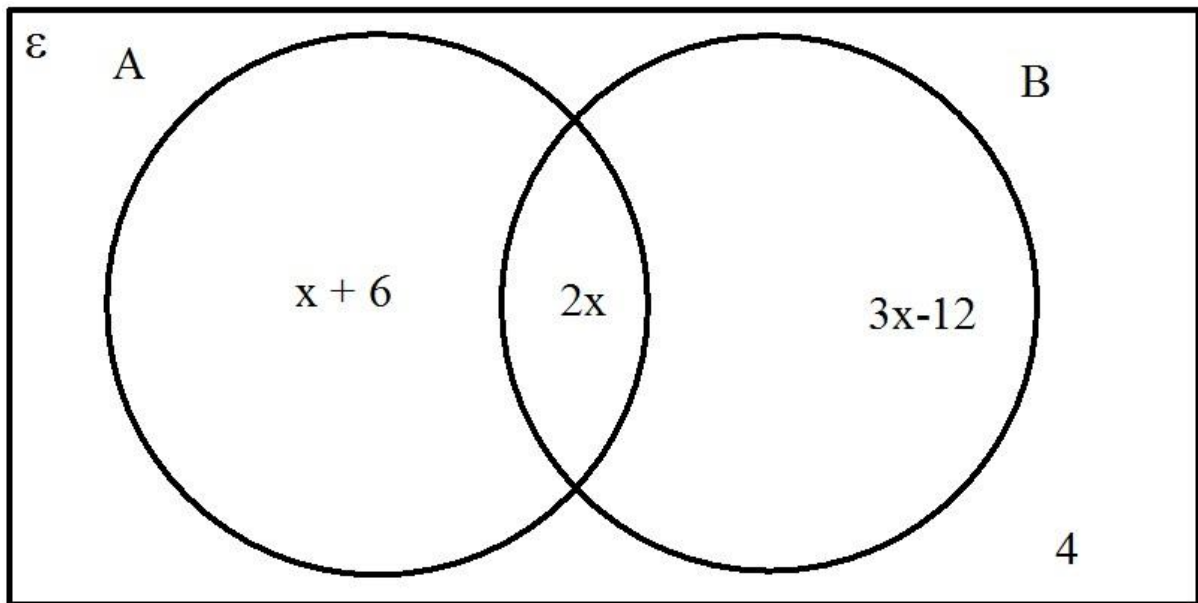
- b. Not studying either Spanish or French.

(2 Marks)

- c. Studying both subjects.

(2 Marks)

2. The diagram below shows the number of elements in sets A and B



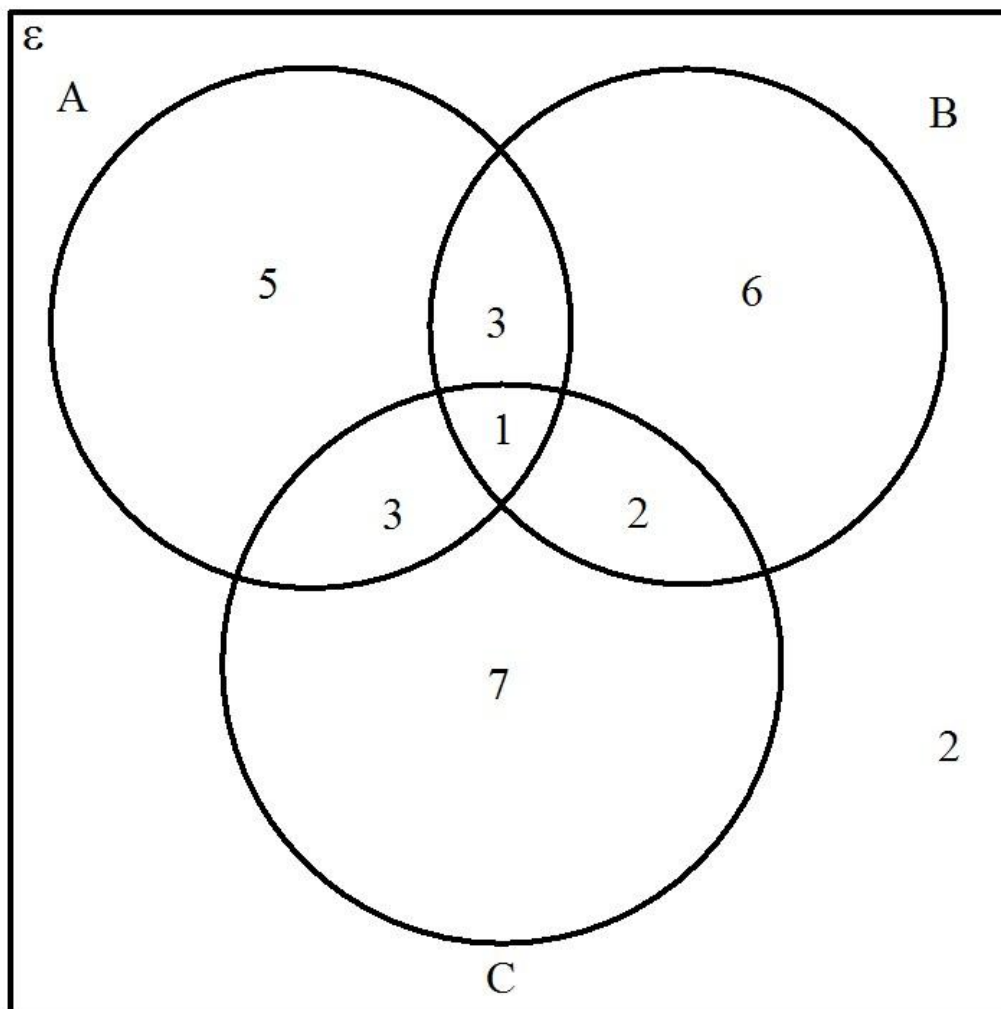
a. Give that  $(\epsilon) = 64$ , find the value of  $x$ .

(3 Marks)

b. Find the probability that a randomly selected element is in set A.

(2 Marks)

3. The Venn diagram below shows the number of elements in sets A, B and C.



a. Work out the total number of elements?

(2 marks)

b. Find the probability that a randomly selected element is in set A.

(1 mark)

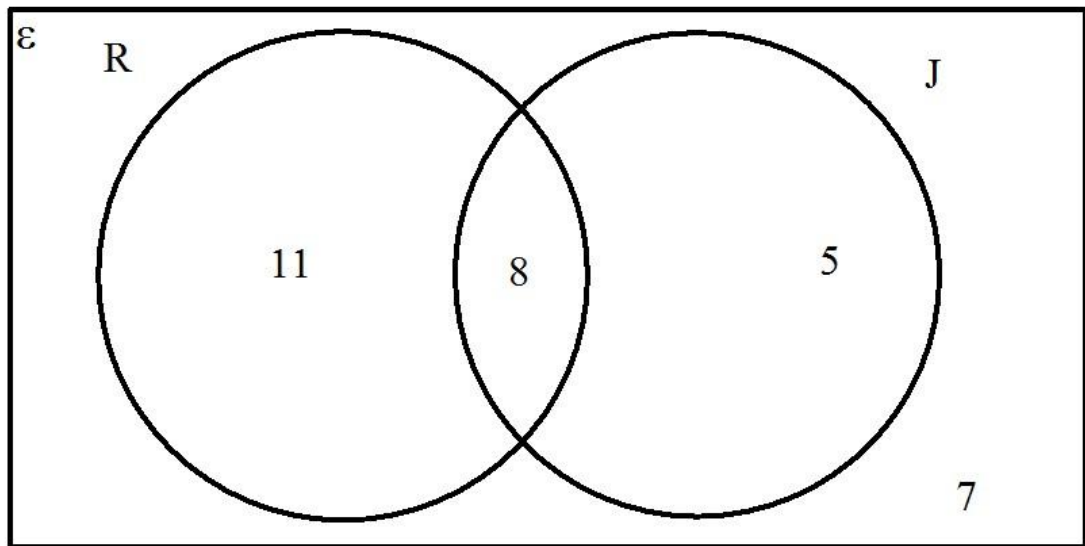
c. Find the probability that a randomly selected element is in set A and one other set

(2 marks)

d. Find the probability that a randomly selected element is in neither set A or B.

(2 marks)

4. Use the Venn diagram to answer the following:



- a.  $R \cup J$
- b.  $R \cap J$
- c.  $R - J$
- d.  $(R \cup J)'$

(6 Marks)