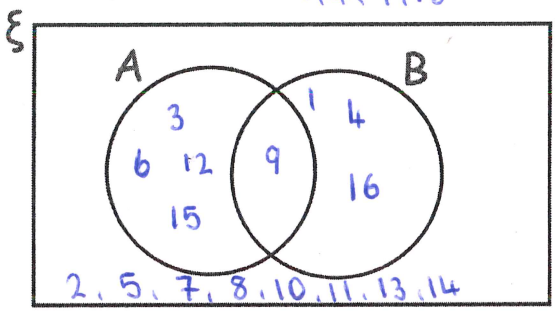
Homework Assessment Topic: Venn Diagrams **Hegarty Video 372/383**

Practice

Completing Venn Diagrams

1. Fill in the Venn below with the numbers 1 to 16.
   A = multiples of 3, 3, 6, 9, 12, 15
   B = square numbers 1, 4, 9, 16



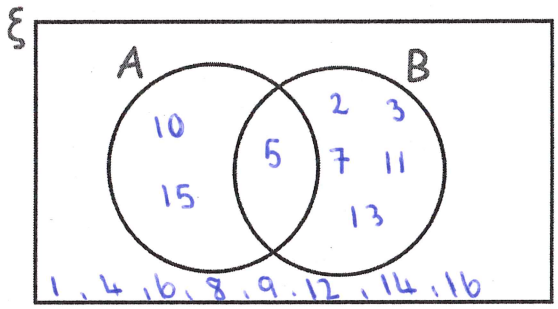
a) Find the probability of picking a multiple of 3.

$\frac{5}{16}$

b) Find the probability of a number being a multiple of 3 and a square number.

$\frac{1}{16}$

2. Fill in the Venn below with the numbers 1 to 16.
   A = multiples of 5, 5, 10, 15
   B = prime numbers 2, 3, 5, 7, 11, 13



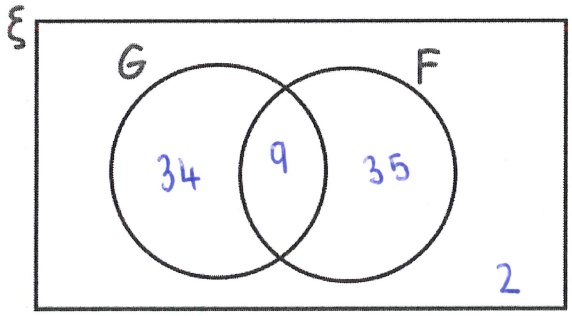
a) Which numbers are in the intersection?

5

b) How many numbers are contained in set A?

3

3. There are 80 students in Year 11.
   9 students study French and German.
   35 students study French only.
   2 students do not study French or German.
   Complete the Venn diagram.



a) How many students study German only?

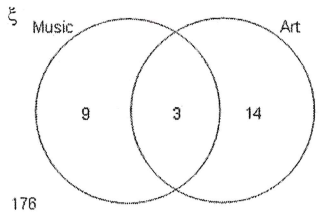
34

b) What is the probability of picking a student who studies French only?

$\frac{35}{80}$

Multiple Choice

The Venn diagram shows the number of students who take A-level Music and Art.



What is the value of $P(M \cap A)$?

A	B	C	D
29	3	26	20

Give a reason for your answer:

M∩A = intersection

Feedback

Teacher Assessment:

You can: + complete a Venn Diagram
+ find probabilities from a Venn Diagram
+ use basic set notation

Understanding		
Red	Amber	Green
Effort		
1	2	3

Self Assessment:

Do you agree with your feedback? YES / NO

Comments:

Action

To improve: ⇨ correct any circled questions on the first page and then try any circled questions below in review time to demonstrate progress. If there are no circled questions then well done on a fantastic piece of homework!

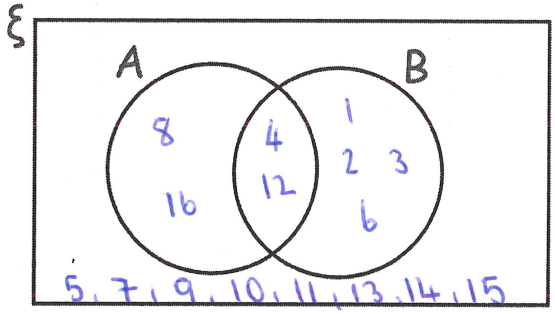
Response

Extra Practice

Fill in the Venn below with the numbers 1 to 16.

A = multiples of 4, 4, 8, 12, 16

B = factors of 12 1, 2, 3, 4, 6, 12



a) How many numbers are both multiples of 4 and factors of 12?

2.

b) What is the probability of picking a multiple of 4?

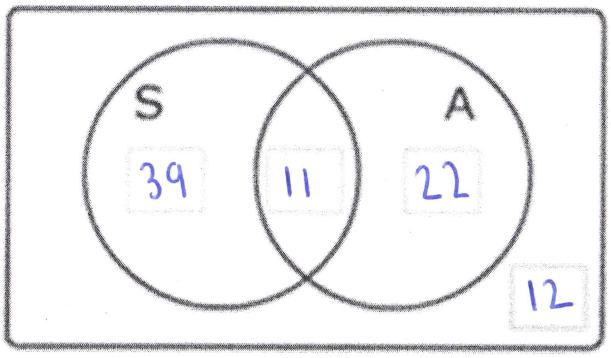
$\frac{4}{16}$

Extension

There were 84 teenagers at an activity centre.

50 of them did sailing.
33 of them did abseiling.
12 of them did neither sailing or abseiling.

Fill in the numbers on the Venn diagram.



84 - 12 = 72
50 + 33 = 83
83 - 72 = 11
50 - 11 = 39 33 - 11 = 22

Find the probability a teenager did both sailing and abseiling.

$\frac{11}{84}$