

2005

Question 5

Q5 (b) In a school of 430 students, 250 students study History, 240 study Geography.

Let x represent the number of students who study neither History nor Geography. The number of students who study both History and Geography is three times the number who study neither of these subjects.

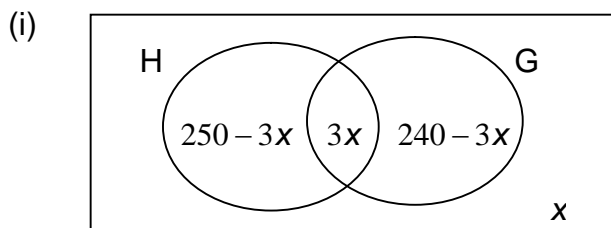
- (i) Represent this information on a Venn diagram.
- (ii) Write down and simplify an expression in x for the total number of students in the school.
- (iii) Use this expression to find the number of students who study History nor Geography.

Solution

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(ii) $250 - 3x + 3x + 240 - 3x + x$
 $490 - 2x$

(iii) $490 - 2x = 430$
 $-2x = -60$
 $x = 30$