

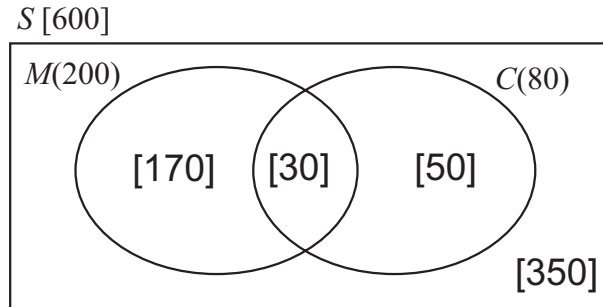
## SAMPLE PAPER 3: PAPER 2

### QUESTION 2 (25 MARKS)

#### Question 2 (a)

Number of students who neither sing nor play an instrument =  $600 \times \frac{7}{12} = 350$

#### Question 2 (b)



Total number of students = 600

Number of students who neither sing nor play an instrument = 350

Number of students who sing **or** play an instrument =  $600 - 350 = 250$

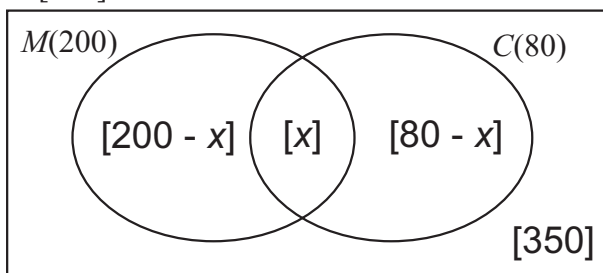
Number of students who play a musical instrument = 200

Number of students who sing in the choir = 80

Number of students who sing **and** play an instrument =  $280 - 250 = 30$

OR

S [600]



$$200 - x + x + 80 - x + 350 = 600$$

$$630 - x = 600$$

$$630 - 600 = x$$

$$\therefore x = 30$$

#### Question 2 (c) (i)

$P(\text{Student sings in choir and plays an instrument})$

$$= \frac{\text{Number of students who sing in choir and play an instrument}}{\text{Number of students}} = \frac{30}{600} = \frac{1}{20}$$

#### Question 2 (c) (ii)

$P(\text{Student does not sing})$

$$= \frac{\text{Number of students who do not sing}}{\text{Number of students}} = \frac{600 - 80}{600} = \frac{520}{600} = \frac{13}{15}$$

#### Question 2 (c) (iii)

$P(\text{Student plays a musical instrument only})$

$$= \frac{\text{Number of students who play an instrument only}}{\text{Number of students}} = \frac{170}{600} = \frac{17}{60}$$