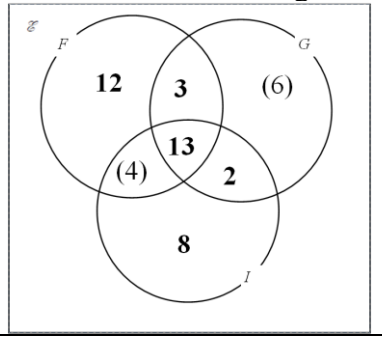
21	(a)	eg $F \cap G \cap I' = 16 - x$ **and** $F' \cap G \cap I = 15 - x$ **or** $F \cap G \cap I' = 24 - 6 - 15 (= 3)$ **and** $F' \cap G \cap I = 24 - 6 - 16 (= 2)$ oe		3	M1	for correct expressions or calculations for the unknown intersections May be seen on the diagram or in the workings but must be linked to correct section Allow for sight of the expressions $x + 4 + 16 - x + 15 - x$ $(= 35 - x)$ or $x + 6 + 16 - x + 15 - x$ $(= 37 - x)$
		eg $x + 6 + 16 - x + 15 - x = 24$ oe eg $37 - x = 24$ **or** $(x =) 24 - (6 + \text{“3”} + \text{“2”})$ or $(x =) 16 + 15 + 6 - 24$			M1	for setting up a correct equation using the total for German **or** for a correct calculation for x
		Correct answer scores full marks (unless from obvious incorrect working)	13		A1	could be shown on diagram 
	(b)	eg “12” + “13” + 6 + 4 + “3” + “2” + “8” (= 48) **or** 60 – (“12” + “13” + 6 + 4 + “3” + “2” + “8”)		2	M1ft	for a method to find total studying at least one of French or German or Italian **or** none of French or German or Italian (ft their values in (a) from a complete Venn diagram and total of all 7 values must be less than 60)
		Correct answer scores full marks (unless from obvious incorrect working)	12		A1ft	for 12 or ft their values in (a) from a complete Venn diagram and total of all 7 values must be less than 60
						Total 5 marks