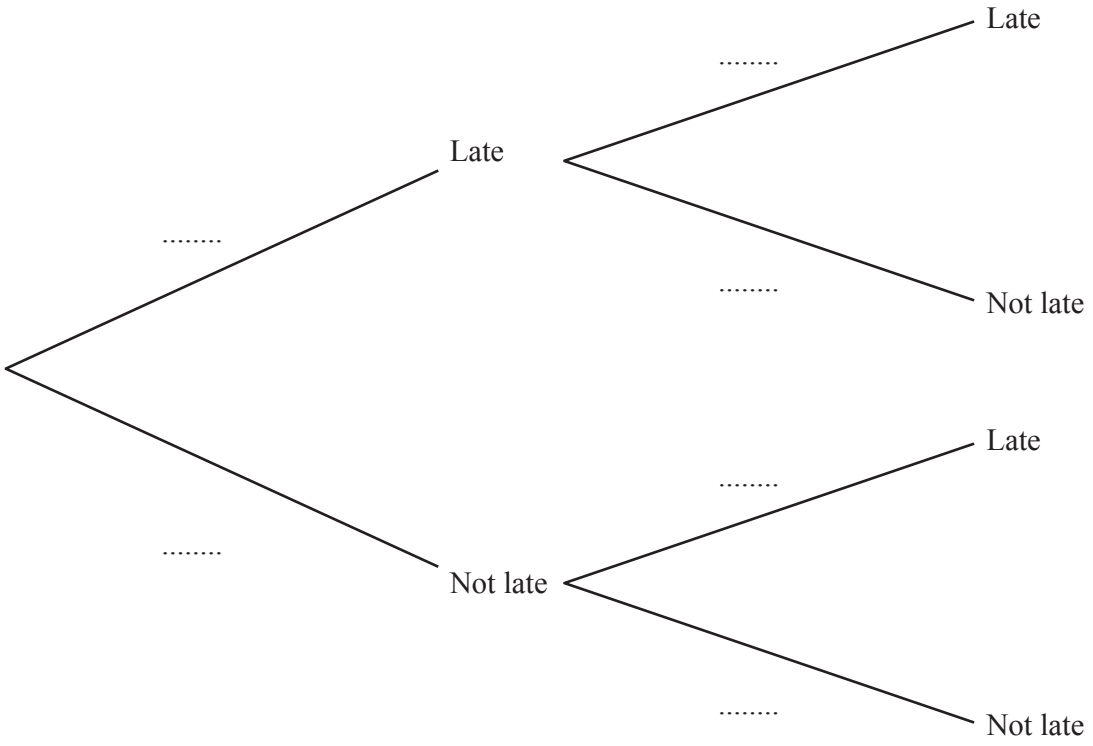
11 **(a)** The probability that Shalini is late for school on any day is $\frac{1}{6}$.

(i) Complete the tree diagram for Monday and Tuesday.

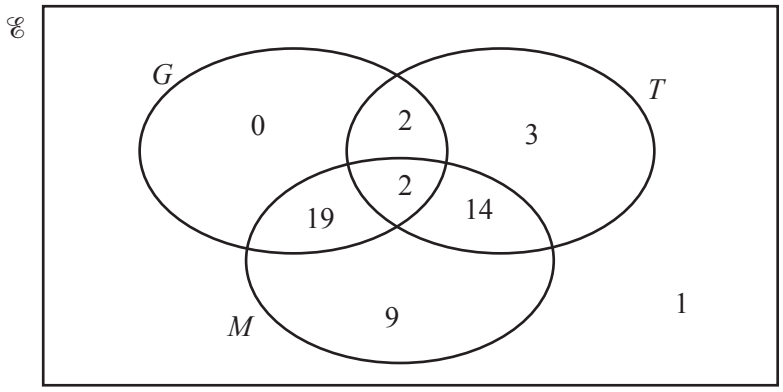


[2]

(ii) Calculate the probability that Shalini is late on Monday but is not late on Tuesday.

..... [2]

(b) The Venn diagram shows the number of students in a group of 50 students who wear glasses (G), who wear trainers (T) and who have a mobile phone (M).



(i) Use set notation to describe the region that contains only one student.

..... [1]

(ii) Find $n\left(T' \cap \left(G \cup M\right)\right)$.

..... [1]

(iii) One student is picked at random from the 50 students.

Find the probability that this student wears trainers but does not wear glasses.

..... [1]

(iv) Two students are picked at random from those wearing trainers.

Find the probability that both students have mobile phones.

..... [3]