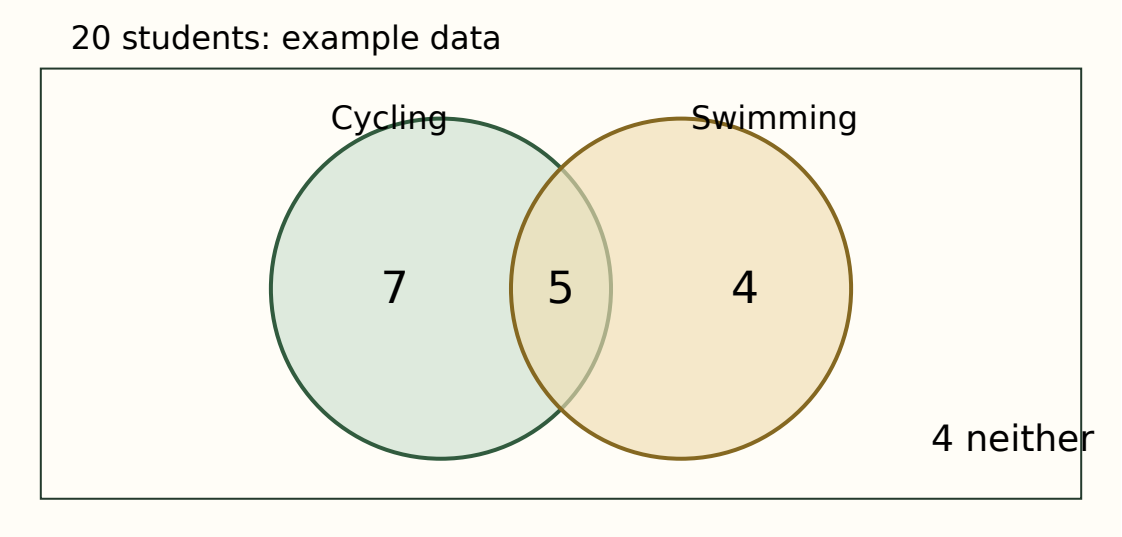
Tables, trees and Venn diagrams

6 questions | 11 marks

Equivalent correct methods earn the corresponding marks.

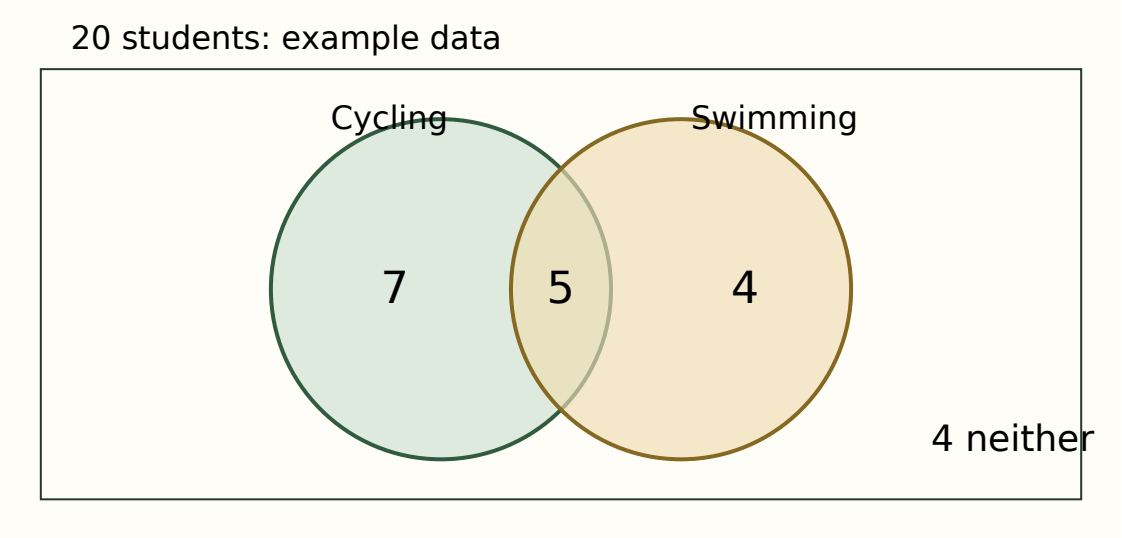
1. How many swim but do not cycle in the diagram? [1 mark]



Read the swimming-only region.

Answer: 4 students.

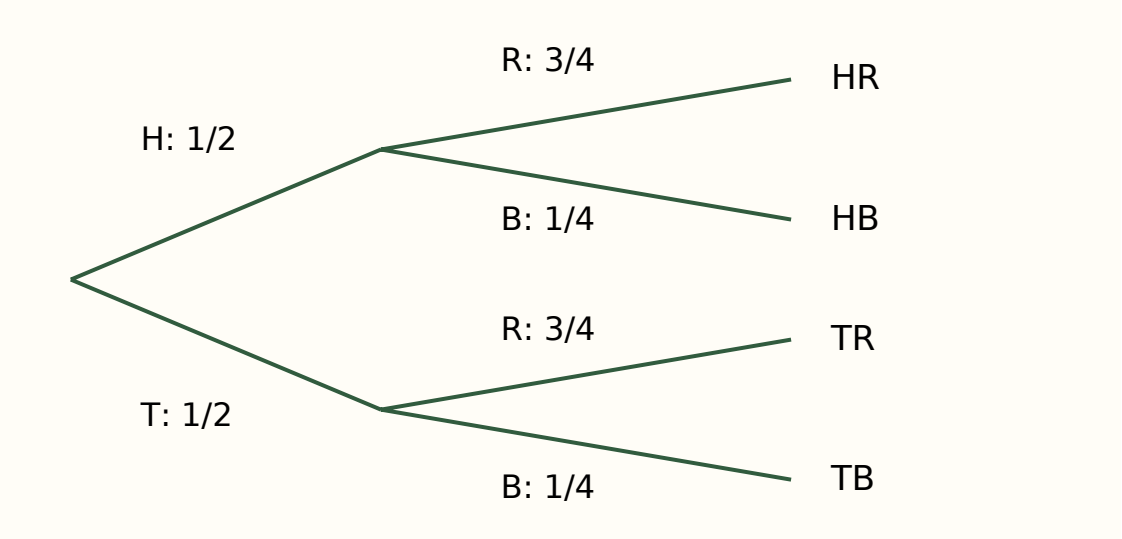
2. Find P(cycling or swimming) in the diagram. [2 marks]



Add 7+5+4 once each.

Answer: 16/20=4/5.

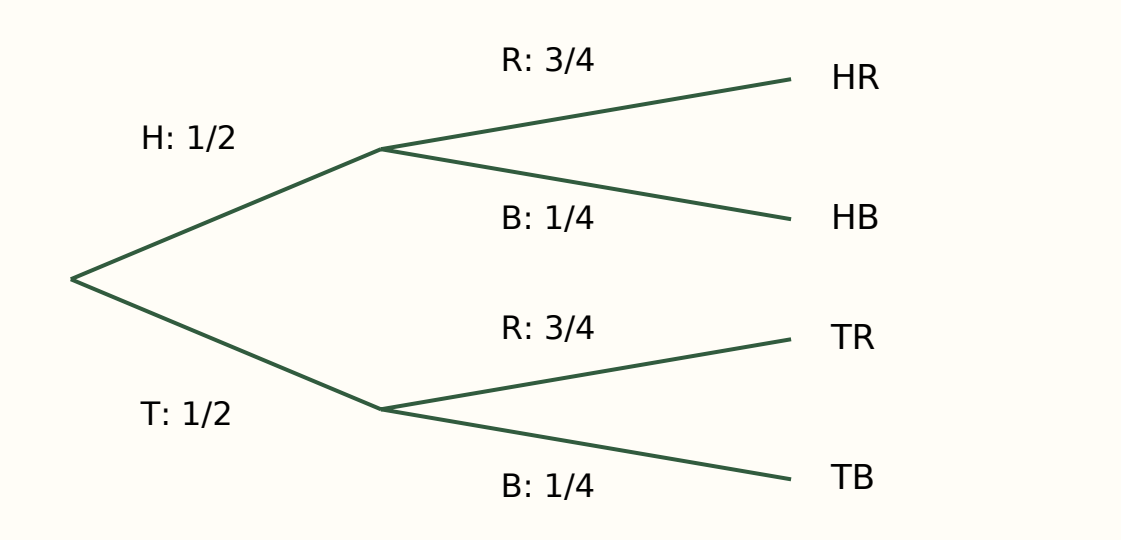
3. List all complete outcomes on the tree. [2 marks]



Each coin result is followed by R or B.

Answer: HR,HB,TR,TB.

4. Using the tree, find P(HR or TB). [3 marks]



P(HR)=3/8; P(TB)=1/8.

Add disjoint outcomes:4/8=1/2.

Answer: 1/2.

5. A two-stage table has 3 rows and 4 columns of outcomes. Count its cells. [1 mark]

3×4=12.

Answer: 12.

6. A branch point has only two alternatives with probabilities 0.4 and 0.7. Explain the error. [2 marks]

All alternatives leaving one point must sum to 1.

Answer: They total 1.1, not 1.