1. When drawing a decision tree, what symbol is used to show:

**a)** when a decision must be made

**b)** when chance takes over?

1. If the probability of the successful launch of a new product is estimated to be 0.72, the probability of a failed launch must be 0.28. Explain why
2. State whether each of the following is a decision or a chance event:
   * **a)** choosing between three different new product options
   * **b)** a new product succeeding or failing in the marketplace
   * **c)** good weather on the day of the open air concert
   * **d)** Whether to advertise or to cut the price.
3. Explain the difference between an expected value and an actual value.
4. State three advantages and three potential pitfalls of using decision trees.
5. Explain the circumstances when decision trees are least useful.
6. If the chance of achieving £200,000 is 0.2 and the chance of £20,000 is 0.8, what is the expected value of a decision?
7. Explain how decision trees may help managers to assess the best decision by 'what if?' analysis.

<https://www.tutor2u.net/business/reference/decision-making-introduction-revision-quiz>

<https://www.tutor2u.net/business/reference/quantitative-skills-decision-trees-webinar>

Look at the tree diagram below. Calculate the expected values at nodes 1-4 and state your decisions at decision points A-C. Indicate your decisions on the tree diagram.

