Section 1.7

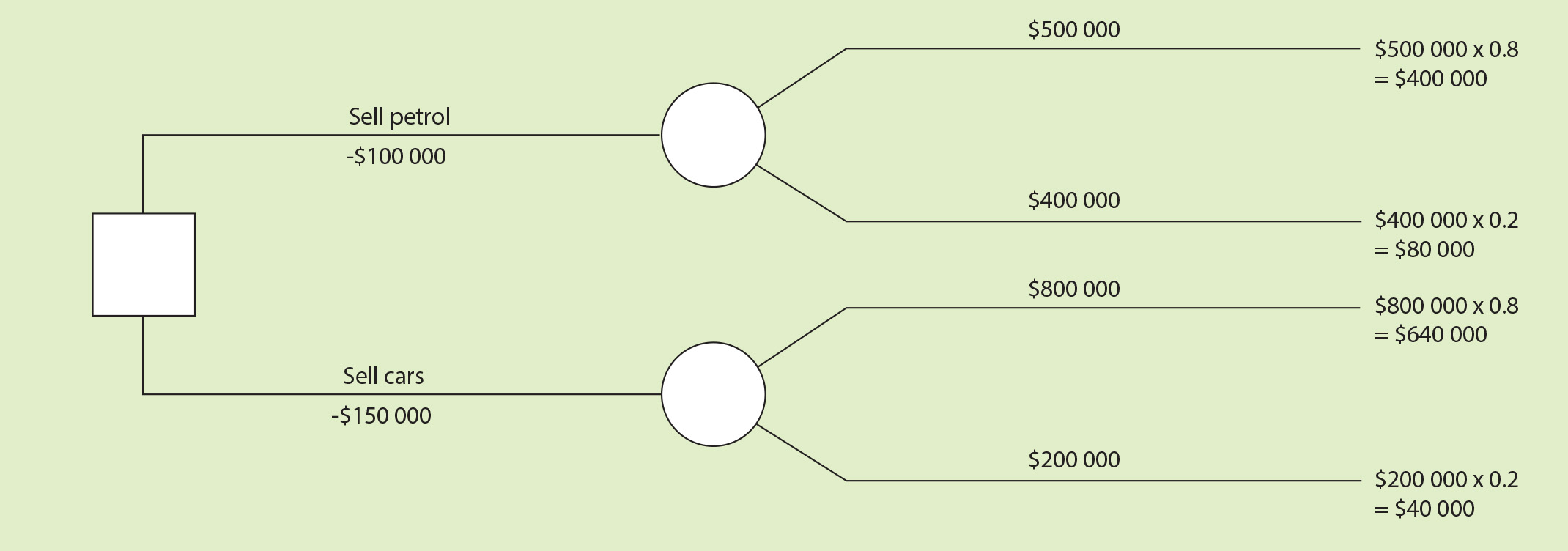
Activity 1.7.1

A fishbone diagram could explain the decline in student numbers at a 16–19 high school by:

* Getting staff to agree the problem statement: ‘reasons for the decline in the number of students … ’
* Brainstorming the main fish bones: measurement, materials, methods, environment, manpower and machines
* Brainstorming detailed reasons in the small fish bones
* Researching the findings as a group.

**Activity 1.7.2**

1. Decision tree for the petrol station expansion:



1. Expected values of:

* Sell petrol [$400 000 + $80 000] – $100 000 = $380 000
* Sell cars [$640 000 + $40 000] – $150 000 = $530 000

Selling cars has the higher return so on this basis it should be chosen.

1. Decision trees have the following advantages:

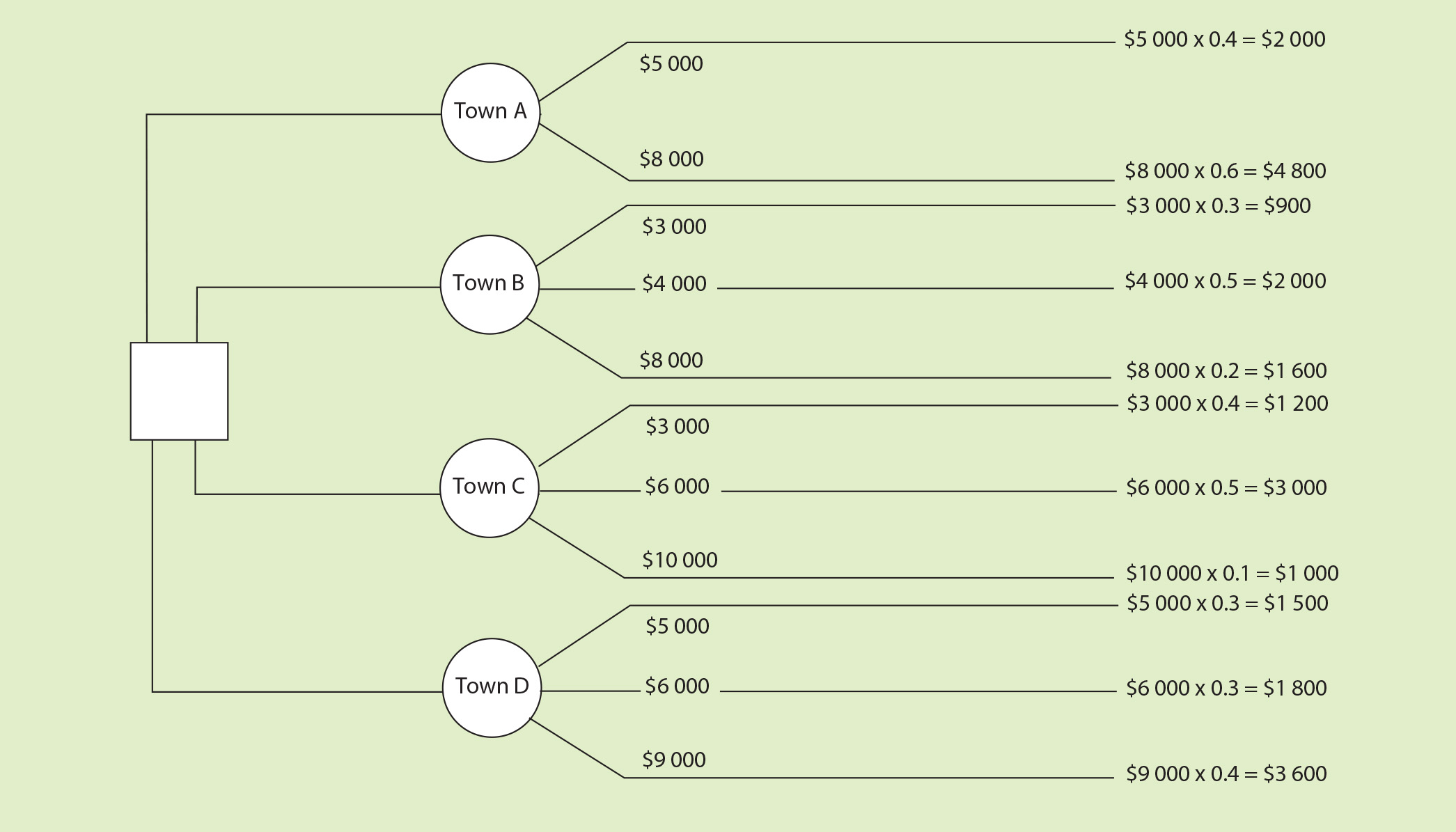
* They allow the visual representation of decisions and possible outcomes
* They show financial outcomes from a decision and the chances of success or failure
* Expected monetary values is a starting point for quantitative assessment.

The disadvantages are:

* Forecasts are not always accurate – costs, revenues and probabilities
* No allowance for non-monetary factors
* Quantitative values change over time.

Activity 1.7.3

1. An ‘expected value’ is the forecasted revenue from an outcome multiplied by the probability of the outcome.
2. Joe’s options:



1. a. Expected values of the four projects are:

* Town A = $6,800
* Town B = $4,500
* Town C = $5,200
* Town D = $6,900.

b. Option D has the highest expected value so it should be chosen on a quantitative basis.

1. Factors that could influence the accuracy of Joe’s forecast might be:

* Entry of a new competitor into the market
* Economic slowdown (recession)
* Change in government regulations on mobile markets.

Activity 1.7.4

Lewin’s force-field would be useful to a school or college planning to introduce IT-based lessons with students working from home one day a week in the following ways:

* The force-field diagram helps weigh up the importance of driving forces (student independence) and restraining forces (loss of school control).
* It helps identify the staff and students most affected by the change.
* It helps the school to strengthen the driving forces (training students to work from home) and reduce restraining forces (methods to monitor students online).
* The leadership style that reduces restraining forces encourages driving forces. Encouraging student participation in the decision may be an option here.

Activity 1.7.5

1. A ‘Gantt chart’ is a visual representation of a project schedule in which a series of horizontal lines shows the amount of work planned in certain periods of time.
2. Steps that can be undertaken simultaneously:

* Explore market need
* Develop the concept for the product.

1. By undertaking some steps simultaneously businesses can:

* Speed up the completion of the project
* Reduce costs.

1. The entire time for the whole project is one year (January – December).
2. Gantt charts are useful for planning new projects in terms of:

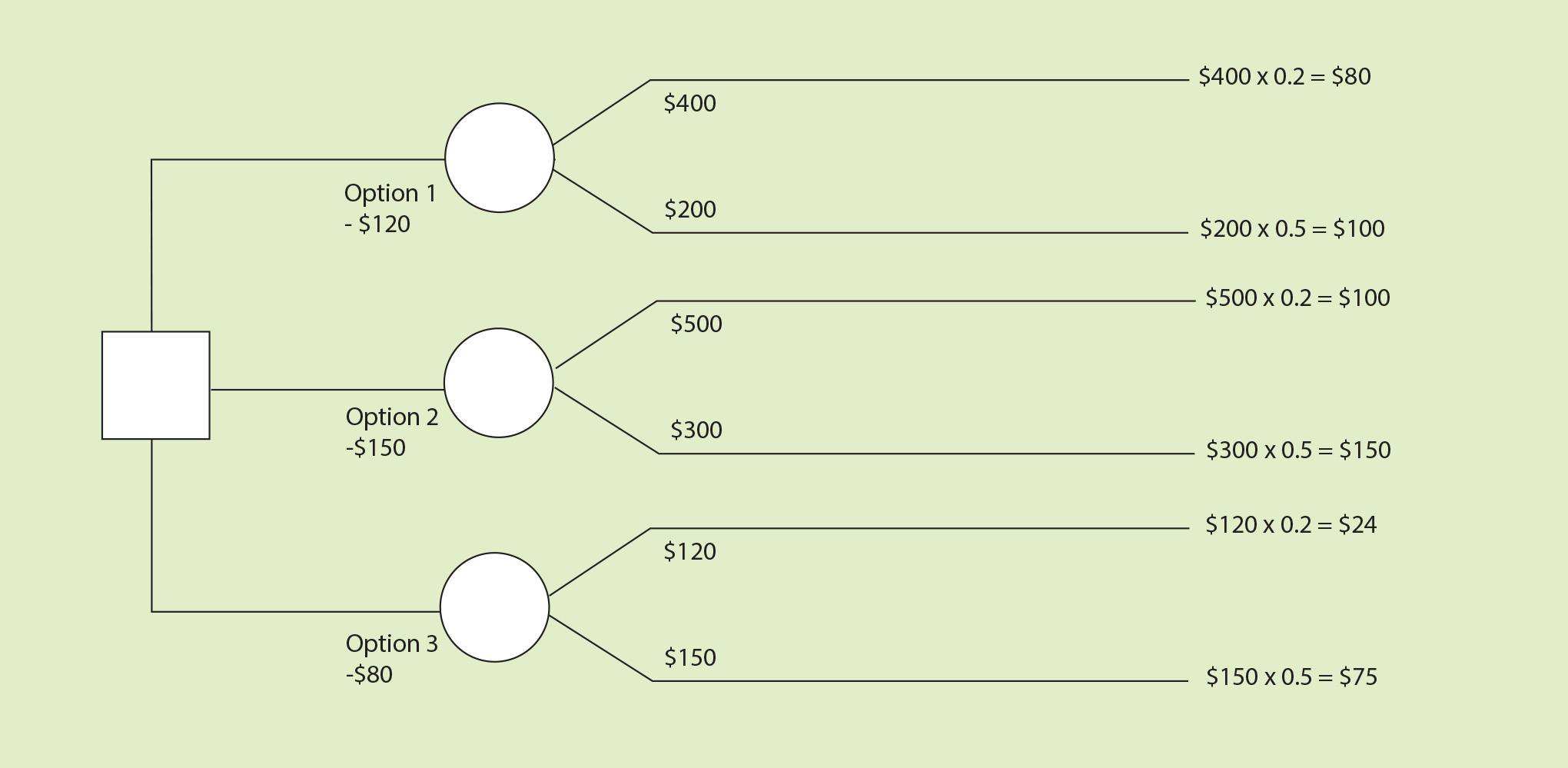
* Ensuring the schedule of a project is achievable
* The right people being given responsibility for activities
* Setting out the most efficient order of activities
* Managing activities during the project
* Updating consumers and employees of progress.

They have the following weaknesses:

* With many tasks they become very complex and difficult to interpret
* Forecasting accurate activity times is difficult
* Interrelationships between activities are not always predictable
* Limited to time factors.

Exam practice question

1. Four Seasons decision tree:



1. The expected values of each option are:

* Option 1: $180 - $120 = $60
* Option 2: $250 - $150 = $100
* Option 3: $99 - $80 = $19.

Option 2 should be chosen.

1. The following non-financial factors might affect Four Seasons’ decision:

* Economic slowdown
* Skills of the management
* Taste and preferences of consumers in new destinations
* Government regulations in new destinations
* Competition in new destinations
* Political stability in new destinations.

Key concept question

Business models are important for businesses strategy because they can be used to:

* Give a view on whether a strategy is achievable
* Allocate responsibility to managers
* Work out the most efficient operation method
* See what the best option is from a number of alternatives
* Plan resource needs: labour, capital and materials
* Plan finance
* Present the strategy to different stakeholders.

They have the following weaknesses:

* They can become over-complex and difficult to interpret
* Forecasting in models is subject to inaccuracy
* They are subject to outside shocks from the business environment
* Only a certain number of variables can be accounted for.