

Achievement Standard 90983

Demonstrate understanding of consumer choices, using scarcity and/or demand

ECONOMICS

1.1

Externally assessed 4 credits



Scarcity and opportunity cost

Resources are scarce in relation to how much is needed and wanted. People's wants are unlimited; they are always wanting more. The world's resources are limited, however; there is a fixed amount available in the world.

All of the world's resources cannot produce enough to satisfy all of the world's wants, because only so many goods can be made from these limited resources.

This creates the central problem in economics:

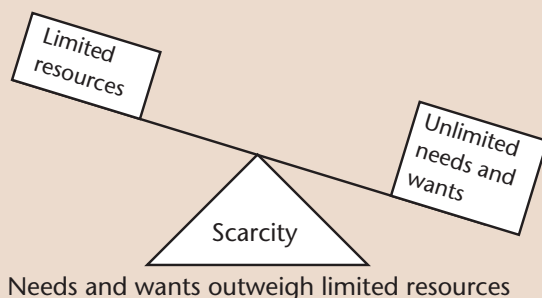
scarcity. The problem is how to best use the resources to satisfy as many needs and wants as possible. (A conflict between limited means relative to wants.)

Limited resources must be shared among individuals, groups and even nations. This is the problem of **allocation**, i.e. what needs and wants are the resources being used to satisfy?

Individuals have many economic problems which need decisions and which have outcomes and consequences.

Every day people are faced with hundreds of economic choices: 'Will I buy a cheeseburger and chips, or a hot dog and Coke?', 'Will I take a bus or walk to school?', 'Will I study or watch TV?', 'Will I rent a house or buy a house?'

Individuals must make choices. They also have the problem of allocation.



Economic problems

Evaluate all the alternatives and choices that can be made

Predict outcomes and consequences of decisions that have been made

In the market, individuals need to earn or receive an income in order to buy goods and services.

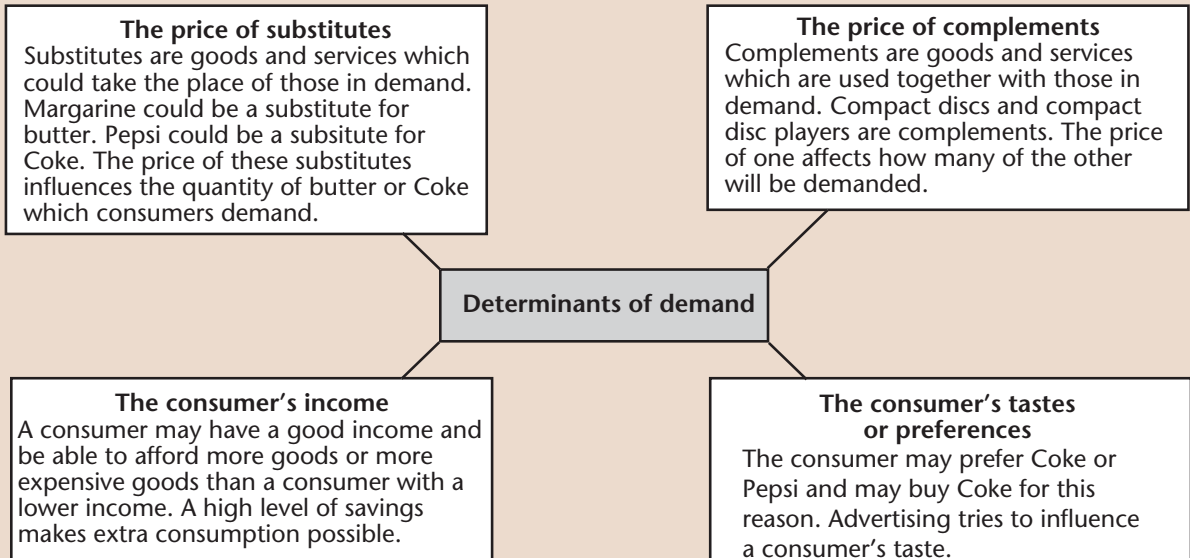
Individuals have only a limited amount of money. People cannot afford to buy all the goods they want, so they must choose what to spend their money on. For example, Campbell has \$20 to spend on music CDs and to hire videos. He would like to hire a cassette and buy a CD, but cannot afford both. If Campbell spends his money on buying CDs, he loses the opportunity to hire videos. This lost opportunity is called the **opportunity cost**. The opportunity cost of buying CDs is not being able to hire videos.

Opportunity cost applies to all economic choices, even the choice of studying for exams or watching television at night. You may enjoy the programme (a benefit), but you may also fail your exams (a cost). The opportunity cost of watching TV is not being able to do your homework.



Changes in demand

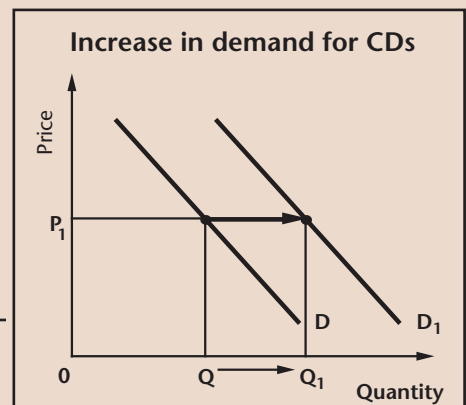
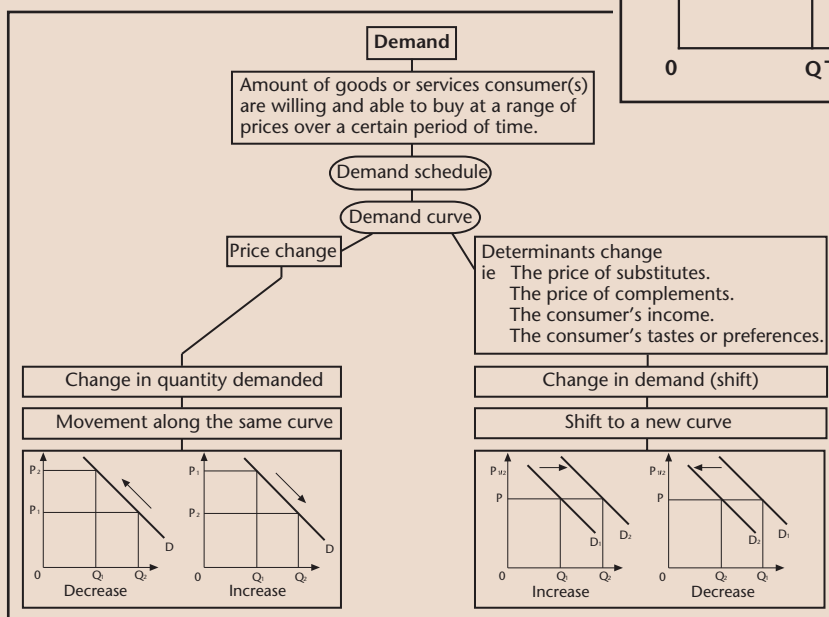
If any other factor (determinant) of demand changes (apart from the price of that good or service), then there will be a change in demand or a shift to a new demand curve.



The graph shows an increase in demand for CDs that could have arisen from:

- Price of substitutes (e.g. videos) increasing.
- Price of complements (e.g. CD players) falling.
- Consumers' incomes increased.
- Consumer tastes switched to CDs.

Summary



Achievement Standard 90985

Demonstrate understanding of producer choices using supply

ECONOMICS

1.3

Externally assessed 3 credits



The supply schedule and the supply curve

Supply is the quantity of goods or services that a producer is prepared to supply at a particular price.

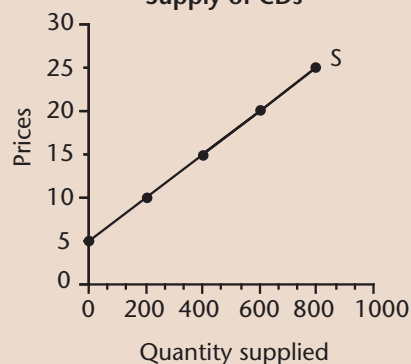
A supply schedule is a table showing quantity supplied in relation to a range of prices.

A supply curve is a graph of a supply schedule. The supply curve of the supply graph will have a little 'S' (for supply) drawn at each end.

Schedule

Supply schedule for CDs	
Price (\$)	Quantity
5	0
10	200
15	400
20	600
25	800

Graph
Supply of CDs



The law of supply (*ceteris paribus*) states that 'as price increases, so too does the quantity supplied'.

Supply is affected by price and determinants of supply, i.e. costs of production, state of technology, amount/price of competition and personal producer preferences.

Change to the price of a good or service results in a change in the quantity supplied (a movement along the same supply curve) of that good or service.

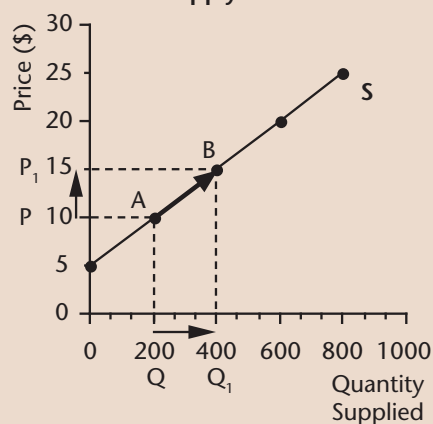
Change to any other factor (determinant) will result in a change in supply, i.e. a shift to a new supply curve.

Change in quantity supplied

If the price of a good goes up then there is an increase in the quantity supplied. If the price of CDs increases from \$10 to \$15, then producers will supply more CDs; the increase is from 200 to 400 on the graph.

If the price of a good goes down then there will be a decrease in the quantity supplied.

Supply of CDs





Questions

The supply schedule and the supply curve

Year 2013
Ans. p. 112

Question One

Stanley is the owner of a small shoe manufacturing factory called *Stanley's Shoes*.

Stanley produces both street shoes and school shoes.

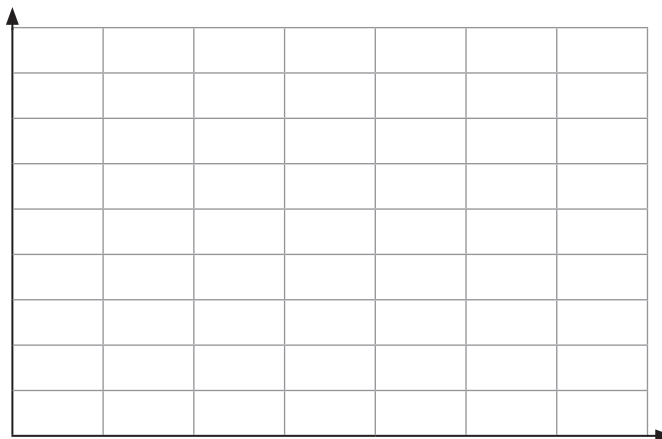
Stanley's monthly supply of street shoes is detailed as follows:

- when the price of street shoes is \$80 per pair, Stanley will produce 1 000 pairs
- if the price was \$180 per pair, he would increase his production to 3 000 pairs
- when the price is \$100 per pair, he will produce 1 500 pairs, and he produces 2 000 pairs when the price is \$130.

Complete **a.–c.** to **fully explain** the law of supply and the effect on the supply of other goods in the context of Stanley's business.

- a.** Using the axes provided below, draw Stanley's monthly supply of street shoes. Fully label your graph.

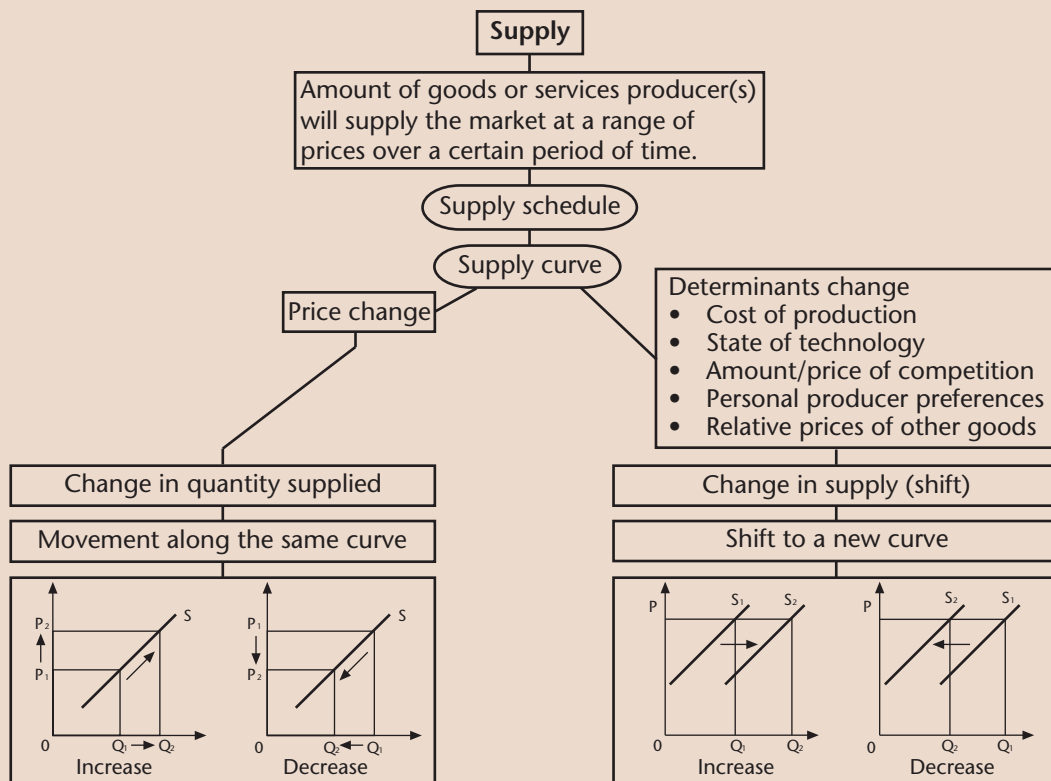
Title: _____



- b.** On your graph above, show the effect of a price increase from \$80 to \$130 per pair for Stanley's street shoes. Fully label the changes.
- c.** Discuss the effect on Stanley's supply of street shoes and school shoes, when the price of street shoes increases from \$80 to \$130.

In your answer:

- describe the law of supply, by referring to the information provided, or your graph
- fully explain the reason for the law of supply in the context of Stanley's street shoes
- describe the relationship between street shoes and school shoes in the context of *Stanley's Shoes*
- fully explain the effect of the price increase of street shoes on Stanley's supply of school shoes.



Causes of change in supply

Increase in supply (curve moves to right)	Decrease in supply (curve moves to left)
Costs of production decrease	Costs of production increase
State of technology improves	State of technology obsolete
Trade barriers removed (in favour of suppliers)	Trade barriers removed (against suppliers)
Legal factors (in favour of suppliers)	Legal factors (against suppliers)
Productivity increases	Productivity decreases
Price of related goods decreases	Price of related goods increases
Quota increased	Quota decreased

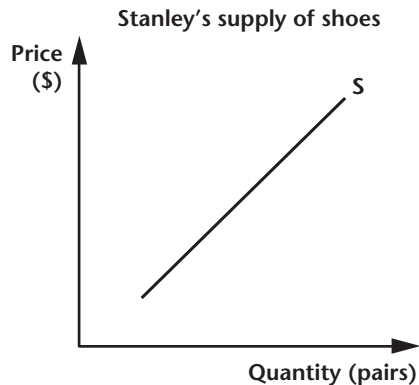
Implications and flow-on effects of a shift in the supply curve/change in supply

A shift to the right (increase in supply) will force a firm to: hire more staff; use more machinery; purchase more raw materials; perhaps increase plant size.	A shift to the left (decrease in supply) has serious effects: laying off staff; having a look at ways to reduce costs; looking at possible alternative goods to produce; even closing down.
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Year 2013
Ans. p. 114

Stanley's factory suffered a power failure in part of the factory due to old, faulty wiring, which affected his operations.

a. On the graph below, show how the power failure affected Stanley's supply of shoes. Fully label the changes you make on the graph.



- b.** Discuss how the power failure affected Stanley's supply of shoes.
- In your answer, you should:
- use an example to explain ONE way in which the power failure will have affected Stanley's shoe production
 - fully explain the link between the power failure, costs of production, and the change in supply of shoes
 - refer to the changes you made to the graph
 - explain ONE flow-on effect of this change.

Achievement Standard 90986

Demonstrate understanding of how consumer, producer and/or government choices affect society, using market equilibrium

ECONOMICS

1.4

Externally assessed 5 credits



The market

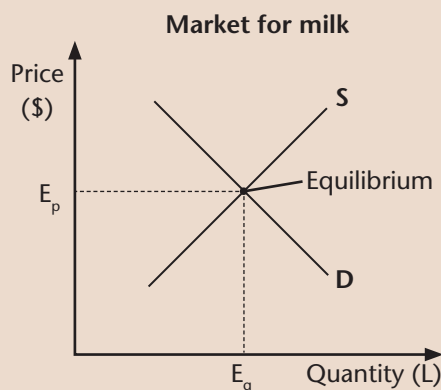
A market is a place or situation where buyers and sellers meet to trade, i.e. to buy and sell goods and services.

Market demand is the horizontal sum of all the demand of all individual consumers.

Market supply is the horizontal sum of the supply of all individual suppliers.

Markets have become specialised and are now interdependent.

In each market there is only one price and quantity at which both buyers and sellers will agree. This is called the equilibrium price. At equilibrium, everything supplied will be bought, and there is no excess supply or excess demand.



Price is used to ration scarce resources and scarce goods and services. Only those who are prepared to pay the market price can buy.

Price in the market sends a signal to producers telling them what is wanted, what is no longer wanted or not in the same quantities as before, and what is now wanted in greater quantities.

Market equilibrium

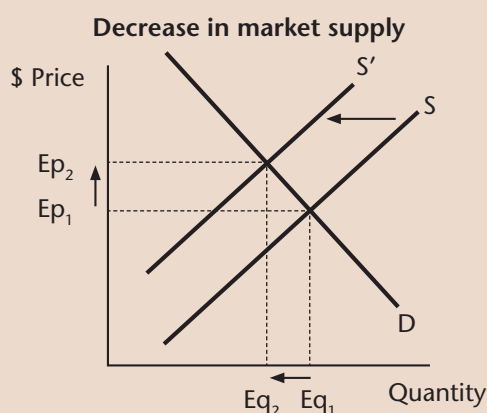
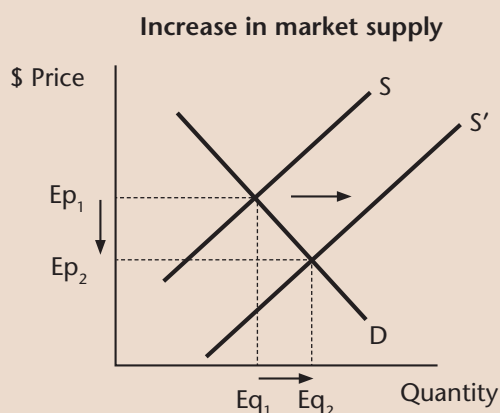
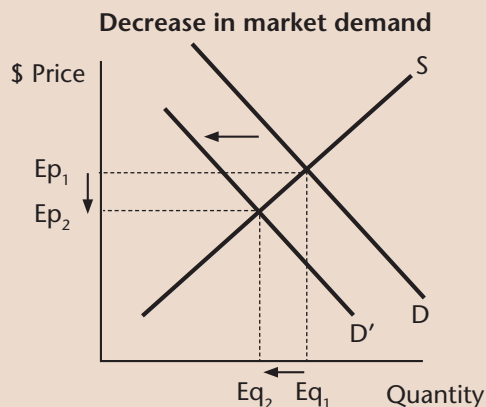
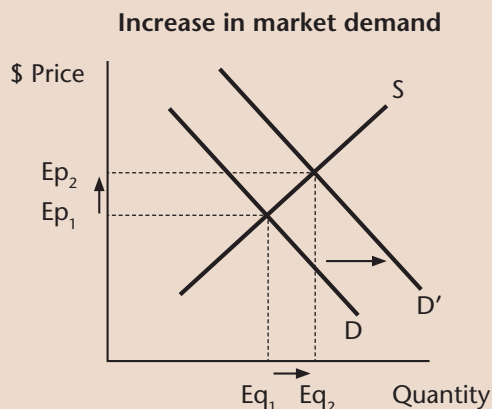
Market price is the price ruling in the market. If market price is at equilibrium there is nothing to make this price change, so it will be stable at equilibrium.

If the market price is not at equilibrium, there will be either excess demand or excess supply, which will push the market price towards the equilibrium price. Market price will continue to change until equilibrium is reached.

There can be only one price ruling in a market at any one time.

Changes to market equilibrium

There are four main changes to the free market, shown by the following changes in demand and supply curves.



Equilibrium and disequilibrium

A. Equilibrium

At equilibrium quantity demanded by consumers is exactly the same as the quantity supplied by firms. The market clears. There is no shortage (excess demand) and no surplus (excess supply).

B. Disequilibrium

If the quantity demanded by consumers is different to the quantity supplied by firms at a particular price then a market situation called disequilibrium occurs.

Question Six

Year 2012
Ans. p. 119

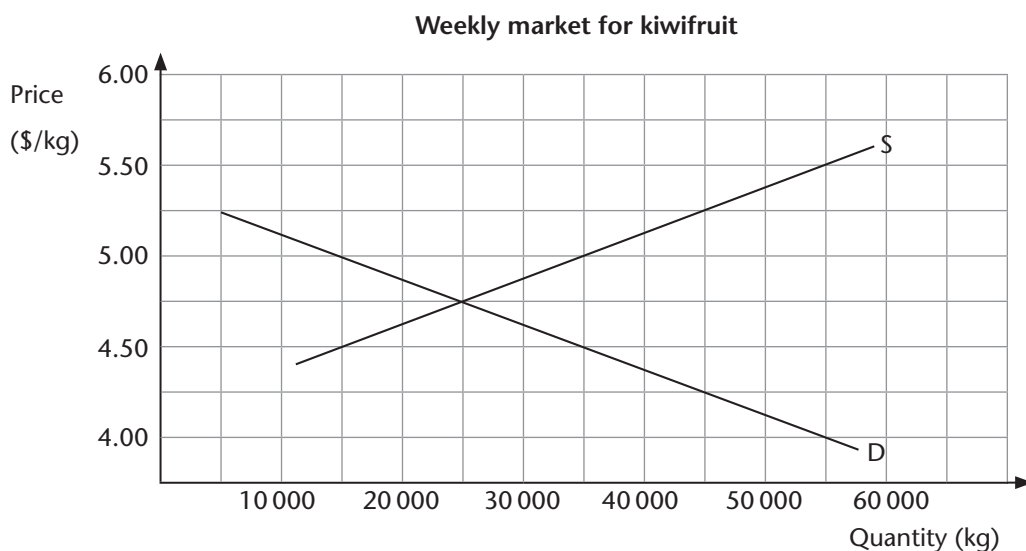
Further studies showing the extensive health benefits of kiwifruit may prompt the Government to consider providing a subsidy to the industry.

Complete questions a. to c. to **fully explain** the effect of a subsidy on different sectors of the economy.

a. On the graph below, show the effect of a \$0.50 subsidy per kilogram on the market for kiwifruit.

You must:

- use dotted lines to show the original equilibrium price and equilibrium quantity (label as **Pe** and **Qe**)
- use dotted lines to show the new equilibrium price (label as **P1**)
- use dotted lines to show the new equilibrium quantity (label as **Q1**).



b. Referring to the graph above, identify and calculate the:

i. Quantity **consumers buy** before and after subsidy

Before: _____ kg After: _____ kg

ii. Price per kilogram **consumers pay** before and after subsidy

Before: \$ _____ per kg After: \$ _____ per kg

iii. Price per kilogram **kiwifruit growers receive** before and after subsidy

Before: \$ _____ per kg After: \$ _____ per kg

iv. Total cost per week to the Government of this subsidy. (Show working.)

\$ _____

c. **Fully explain** how a subsidy on kiwifruit might affect different sectors of the economy.

In your answer, you should:

- explain the change in price to the consumer
- explain the change in price to the kiwifruit growers
- explain the immediate effect on the Government
- explain any possible longer-term benefit to the Government
- refer to the graph.

Answers and explanations

The 'Achieved' (A), 'Merit' (M) and 'Excellence' (E) ratings given are based on professional judgement made by the author.

Achievement Standard 90983 (Economics 1.1): Demonstrate understanding of consumer choices, using scarcity and/or demand

1.1 Consumer choice, scarcity and opportunity cost

p. 2

Question One

Taylor faces the problem of scarcity because her wants are greater than her limited means (e.g. time and money). She wants to sing in the school choir, play football, help with the family business and play computer games with her friends. (A) However, she does not have enough time (there are only 24 hours in a day, 7 days in a week) or money to sing, play football, help with the family business and play computer games. Taylor is constrained by having limited time and money available for all these activities. (M) This means Taylor will have to make a choice. If her first preference is to play football and her second preference is to sing in the choir, then the opportunity cost of her decision to play football is that she will miss out on singing, forgoing her second preference. (E)

Question Two

Alexi is not able to go to all three holiday destinations. Alexi has only two weeks to go on holiday and that is not enough time to go to Samoa, China and France. Alexi is saving \$50 per week for his holiday and this is not enough money to go to Samoa, China and France. (A) Because Alexi has limited time (limited means) and limited income (limited means) he needs to make a choice. Time is limited because there are only 24 hours in a day, and Alexi has more things he wants to do such as visit all three countries. (M) This means Alexi has to make a choice as to which country he will visit for his holiday. When he chooses one destination (e.g. Samoa) he has to give up his next best alternative, which is defined as his opportunity cost (in this instance, going to China). (E)

Question Three

Time is a limited resource for Rina as there are only 24 hours in a day. Her wants are unlimited (e.g. working at the local café, writing short stories, attending Zumba and spending time with her family). However, her time (a personal resource) is limited. This is scarcity. Scarcity of time means Rina needs to make a choice (a decision) between which activities she does as there is not enough time to complete them all. When Rina makes a choice as to the activities she will spend her time on, she misses out on her second choice. This is the opportunity cost of her decision, the next best alternative forgone. For example, Rina chose to work at the café since it was her first choice. Attending Zumba was her opportunity cost since it was her second choice.

((A) Scarcity, choice and opportunity cost defined. (M) two of scarcity, choice and opportunity cost explained. (E) Scarcity, choice and opportunity cost explained with reference to the resource material provided.)

Question Four

- a. Wants = desires. Needs = essentials. (A) Because Anita does not require a 7-day cruise for survival, it is a want. A need for Anita is something essential for life, such as food. (M)
- b. Limited means are the personal resources we have (family, income, time, skills). Opportunity cost is the next best alternative forgone when a decision is made. (A) Because Anita has limited income of \$10 000, she needs to make a decision as to which of the following three options she will choose: 7-day cruise, *Kiwisaver* retirement account or lend the money to a close relative. This is because Anita does not have enough income to choose all three options as this would cost \$30 000 and she only has \$10 000. If Anita chooses the 7-day cruise and her second choice was the *Kiwisaver* retirement account, then her opportunity cost of the cruise was *Kiwisaver*. (M)

Question Five

- a. Good: photocopied worksheets, poster.
Service: coaching students. (A – both answers correct)
- b. A good is a tangible object. A service is something done for you. (A)
- c. Time (only Wednesday afternoons). (A)
- d. Limited means is limited personal resources, e.g. time. Choice is decisions made. Opportunity cost is next best decision, foregone when a decision is made. (A) Because Denesh has limited time (only Wednesday afternoons) he needs to make a choice (economic decision) about what he does at the homework centre, e.g. photocopying worksheets / coaching students and designing posters. When he makes a choice about what he spends his time doing, he misses out on his second-best option. This is his opportunity cost. (M)

Question Six

- a. A person who purchases goods or services. (A)
- b. Limited resources are our personal means. Because there are only 24 hours in a day / seven days in a week, Lucy has limited time to do everything she wants, including tutoring three nights a week, and, on weekends, doing housework / shopping/aerobic training and working. (A – one; M – two)
- c. i. Opportunity cost. (A)
ii. Wants are desires. Lucy has limited income (birthday money) so she was not able to buy dance lessons and buy a television. (M)

1.1 Consumer choices and values

p. 8

Question One

Values are those ideas/beliefs that people consider important in their lives, and that influence their decisions. Taylor values being social / her personal enjoyment when she decides to have friends

round to play computer games. (A) When Taylor's parents want Taylor to spend more time working in the family business they value doing good for others and consideration for others in the family. When Taylor's parents want Taylor to spend more time doing homework, they value learning, education and academic success. Taylor's values and the values of her parents may conflict because they have different beliefs about what is important. For example, Taylor may want to spend time with her friends because she values personal enjoyment, whereas her parents want her to do her homework as they value academic success. In this situation Taylor is enjoying living in the moment whereas her parents are focusing on future school qualifications. (M) Compromises to resolve this conflict may include Taylor spending time before dinner with her friends, and time after dinner doing homework. This way both Taylor and her parents get some of what they want. Taylor could do an extra couple of hours helping with the business on one night a week and have Friday nights set aside to spend with her friends, with no requirement to do any homework. These compromises resolve the conflict as both groups get some of what they want. (E)

Question Two

Values are core beliefs, things we think are important that affect how we use our limited means. Alexi demonstrates the value of looking after others when giving to charity. Alexi demonstrates the value of having fun/enjoying himself when choosing to go on holiday. (A) Alexi's values are conflicting when one of his values is concern for others (charity) and the other is enjoying himself and having fun (holiday). (M) Possible compromises include donating some money (e.g. \$10 per week) to charity and going on a cheaper holiday (saving \$40 per week), donating his time to a charity (e.g. volunteering) rather than money so he still can save (\$50 per week) for his holiday. Either choice will allow Alexi to support a charity and go on holiday. (E)

Question Three

Values are principles that consumers think are important. If Rina values her health it is most likely that she will choose to spend her time attending Zumba fitness classes. This is because being healthy is important to her and attending Zumba classes will help her to improve her health. If Rina values financial stability it is most likely she will choose to spend her time working at a local café. This is because she will be able to earn an income which will help her to be financially stable. Rina may face a conflict between spending time at Zumba and working at the café if the Zumba class is on at the same time as one of her shifts at the café. This will mean she cannot do both activities. Rina may resolve this conflict by changing her shifts at the café so she can work at another time instead and still attend Zumba, or work her shift at the café and find another gym with a Zumba class on at another time so she can work as normal and attend Zumba at another time instead. This will allow Rina to earn a wage for financial stability as well as maintain her fitness.

((A) Values and conflicts defined. (M) Two likely activities and a possible conflict explained. (E) Likely activities, a possible conflict, and two methods to resolve the conflict fully explained.)

Question Four

- Consideration for others: Option C. Future financial security: Option B. (A – both correct)
- A loan from Anita to her relatives will help her relatives as their personal resources will increase as they will have an increased income of \$10 000. This means they will be able to get more of their "needs and wants" met. The loan will also provide Anita with a future income, as she will be repaid the loan with interest, resulting in her receiving more in return than the original \$10 000 she lent. (M)

(E = two Ms from a., b. and c.)

Question Five

Values are things we think are important. Because Lucy thinks consideration for others is important, she may spend her income on goods and services that help others (e.g. she may give money to charity, purchase fundraising raffles, buy headphones for her stereo so her flatmates do not have to listen to her loud music).

Your examples of spending decisions must be clearly linked to consideration for others. (M)

Question Six

- Any one of Tui, Chrissy or Ben could be chosen, although Ben is the easiest choice for answering this question. Ben is used to answer this question.
 - Ben.
 - Family relationships are important to him, as he is a father and husband. (A)
- Ben now has a young family. While he could be earning money plumbing rather than attending the whānau gathering, he may value family relationships more, and want his two children to have the benefit of strong family ties. (M)
- A value determines a person's behaviour. If Ben valued income more than family relationships, he may have made a different choice, but as he is keen for himself and his family to spend time with the whānau, the value of family ties has led him to make the economic decision to attend the family gathering, with the opportunity cost of not earning income from going to work. (E)

1.1 Factors affecting demand

p. 13

Question One

The quantity of a good or service that a consumer is willing and able to purchase at a range of prices in a given time period. Assuming *ceteris paribus*. (A)

Question Two

- Substitutes. (A)
 - When the price of desktops increases, quantity demanded decreases (due to the law of demand). Demand for laptops increases as they become relatively cheaper and can be used in place of desktops (and vice versa if price of desktops decreases). (A – demand for laptops increases; M – reason why laptops relatively cheaper / more expensive)
- Charlie's income, tastes/fashion/preferences, price change of a complement to laptops. (A – any two correct)

Question Three

- Tom's income. / His tastes or preferences in what type of bike he wants. / The price of substitute bikes. (A – any two correct)
- Price determines quantity demanded. Tom can only ride one bike at a time. May be more important to Tom to ride the right bike than the cheapest bike. Quality is important to Tom. (M)
- Consumers are aware of substitutes. A poor-quality bike may not be good value for money. Value for money is important when consumers make decisions.

OR: Consumer demand may decrease because their tastes and preferences may be for a better-quality bike.

OR: Tom may not have the skills to ride a bike. (A)