

**Assessment Schedule – 2012**

**Economics: Demonstrate understanding of how consumer, producer and/or government choices affect society, using market equilibrium (90986)**

**Evidence Statement**

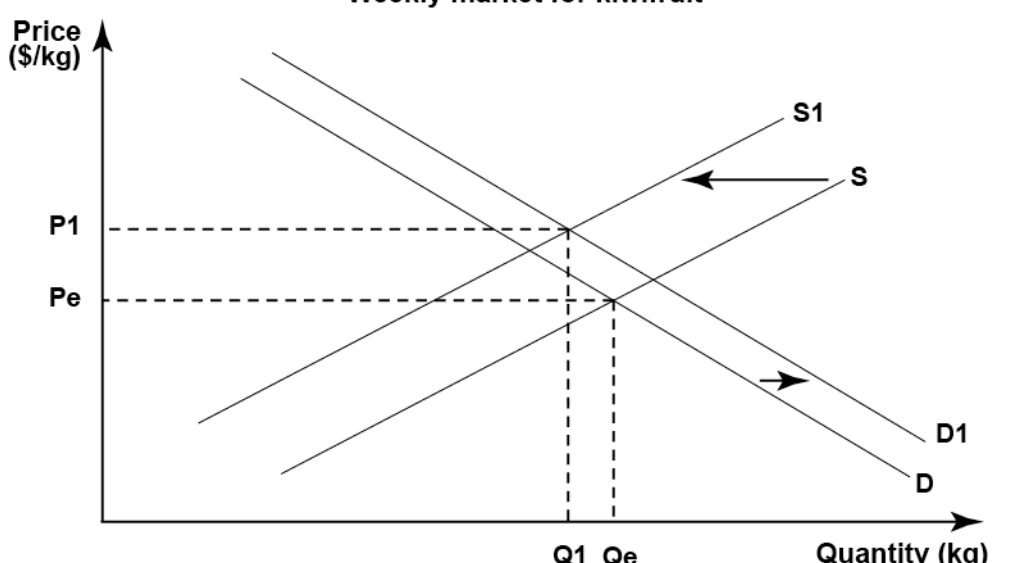
Question	Evidence																		
<p><b>ONE</b> (a)</p>	<table border="1" style="width: 100%; text-align: center;"> <thead> <tr> <th colspan="3" data-bbox="279 439 1193 517">Market for Kiwifruit (per year)</th> </tr> <tr> <th data-bbox="279 517 545 629">Price (\$ per kg)</th> <th data-bbox="545 517 850 629">Market supply (tonnes)</th> <th data-bbox="850 517 1193 629">Market demand (tonnes)</th> </tr> </thead> <tbody> <tr> <td data-bbox="279 629 545 707">3.00</td> <td data-bbox="545 629 850 707">7 000</td> <td data-bbox="850 629 1193 707"><b>10 000</b></td> </tr> <tr> <td data-bbox="279 707 545 786">4.00</td> <td data-bbox="545 707 850 786">8 000</td> <td data-bbox="850 707 1193 786">8 000</td> </tr> <tr> <td data-bbox="279 786 545 864">5.00</td> <td data-bbox="545 786 850 864">9 000</td> <td data-bbox="850 786 1193 864">4 500</td> </tr> <tr> <td data-bbox="279 864 545 943"><b>6.00</b></td> <td data-bbox="545 864 850 943">10 000</td> <td data-bbox="850 864 1193 943"><b>2 000</b></td> </tr> </tbody> </table>	Market for Kiwifruit (per year)			Price (\$ per kg)	Market supply (tonnes)	Market demand (tonnes)	3.00	7 000	<b>10 000</b>	4.00	8 000	8 000	5.00	9 000	4 500	<b>6.00</b>	10 000	<b>2 000</b>
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(a) & (b)	<p style="text-align: center;"><b>The market for kiwifruit (per year)</b></p> <p style="text-align: center;"> <span style="margin-right: 100px;"><math>Q_d</math></span> <span style="margin-right: 100px;"><math>Q_e</math></span> <span><math>Q_s</math></span> </p> <p style="text-align: center;">Surplus</p> <p style="text-align: right;">Quantity (tonnes)</p>																		

(c)	<p>At \$5 there is a surplus of 4 500 tonnes, as the quantity supplied is greater than the quantity demanded, ie the quantity supplied by the kiwifruit growers is 9 000 tonnes while there are only 4 500 tonnes demanded by consumers. The growers will reduce the price to try to get rid of the surplus or unsold stock.</p> <p>As the price falls, quantity demanded will rise (law of demand) as kiwifruit becomes more affordable. As the price falls, quantity supplied will fall (law of supply) as kiwifruit will now be less profitable.</p> <p>The price will continue to fall until it reaches \$4, where quantity demanded will equal quantity supplied of 8 000 tonnes.</p>
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### Judgement Statement – Question One

N1	N2	A3	A4	M5	M6	E7	E8
<p>Shows partial understanding with only TWO of:</p> <ul style="list-style-type: none"> <li>• completes table with ALL three items correct</li> <li>• correct plotting of most points with equilibrium point identified</li> <li>• identifies a surplus</li> <li>• describes a surplus</li> <li>• identifies a fall in price.</li> </ul>	<p>Shows partial understanding with THREE of:</p> <ul style="list-style-type: none"> <li>• completes table with ALL three items correct</li> <li>• correct plotting of most points with equilibrium point identified</li> <li>• identifies a surplus</li> <li>• describes a surplus</li> <li>• identifies a fall in price.</li> </ul>	<p>Shows understanding with FOUR of:</p> <ul style="list-style-type: none"> <li>• completes table with ALL three items correct</li> <li>• correct plotting of most points with equilibrium point identified</li> <li>• identifies a surplus</li> <li>• describes a surplus</li> <li>• identifies a fall in price.</li> </ul>	<p>Shows breadth of understanding with</p> <ul style="list-style-type: none"> <li>• correct plotting of <b>all</b> points, with equilibrium identified <b>AND TWO</b> of:</li> <li>• identifies a surplus</li> <li>• describes a surplus</li> <li>• identifies a fall in price.</li> </ul>	<p>Detailed explanation of how equilibrium is restored.</p> <ul style="list-style-type: none"> <li>• Uses data to identify a surplus</li> <li>• explains the surplus ie <math>Q_s &gt; Q_d</math></li> <li>• explains why price will fall (ie kiwifruit growers will reduce price to get rid of unsold stock).</li> </ul> <p>OR</p> <p>uses law of demand OR supply to explain the restoration of equilibrium.</p>	<p>Detailed explanation of how equilibrium is restored.</p> <ul style="list-style-type: none"> <li>• Uses data to identify a surplus</li> <li>• explains the surplus ie <math>Q_s &gt; Q_d</math></li> <li>• explains why price will fall (ie kiwifruit growers will reduce price to get rid of unsold stock)</li> <li>• uses law of demand OR supply to explain the restoration of equilibrium.</li> </ul>	<p>Comprehensive explanation of how equilibrium is restored with some reference to data / graph. Only minor errors in use of economic terms.</p> <ul style="list-style-type: none"> <li>• explains surplus using data <b>correctly</b></li> <li>• explains why price will fall (ie kiwifruit growers will reduce price to get rid of unsold stock)</li> <li>• applies law of supply (ie <math>P \downarrow Q_s \downarrow</math>)</li> <li>• applies law of demand (ie <math>P \downarrow Q_d \uparrow</math>).</li> </ul>	<p>Comprehensive explanation of how equilibrium is restored with specific reference to data / graph. Uses appropriate economic terms.</p> <ul style="list-style-type: none"> <li>• explains surplus using data <b>correctly</b></li> <li>• explains why price will fall (kiwifruit growers will reduce price to get rid of unsold stock)</li> <li>• applies law of supply (ie <math>P \downarrow Q_s \downarrow</math>)</li> <li>• applies law of demand (ie <math>P \downarrow Q_d \uparrow</math>)</li> <li>• equilibrium restored at <math>P_e</math> \$4 &amp; <math>Q_e</math> 8000 tonnes.</li> </ul>

**N0** = No response; insufficient relevant evidence.

Question	Evidence
<p>TWO</p> <p>(a)</p>	<p style="text-align: center;"><b>Weekly market for kiwifruit</b></p>  <p>The graph shows a weekly market for kiwifruit. The vertical axis is labeled 'Price (\$/kg)' and the horizontal axis is labeled 'Quantity (kg)'. There are two downward-sloping demand curves: the original demand curve 'D' and a new demand curve 'D1' shifted to the right. There are two upward-sloping supply curves: the original supply curve 'S' and a new supply curve 'S1' shifted to the left. The initial equilibrium is at the intersection of 'D' and 'S', with equilibrium price 'Pe' and equilibrium quantity 'Qe'. The new equilibrium is at the intersection of 'D1' and 'S1', with equilibrium price 'P1' and equilibrium quantity 'Q1'. Dashed lines connect these equilibrium points to their respective values on the axes. Arrows indicate the direction of the shifts: a rightward arrow for the demand curve and a leftward arrow for the supply curve.</p> <p><b>Note:</b> Typical answer, showing small shift in demand. P1 and Q1 will vary, depending on the extent of shift of the demand curve. See three alternatives in (b) below.</p>

(b)

Possible reasons for the decrease in supply may be:

- increased costs of production (eg cost of labour, fertilisers)
- disease (or weather killing off plants)
- indirect taxes.

These will reduce the profitability of kiwifruit, and so less will be supplied at each and every price.

Demand curve shifts to the right to D1, showing an increase in demand as the reported nutritional benefits will mean more kiwifruit will be demanded at each and every price.

Three possible answers depending on extent of shift of Demand curve are:

- (Based on the graph above, with shift of demand less than shift of supply): The resulting effect is an increase in price from  $P_e$  to  $P_1$ , and decrease in quantity from  $Q_e$  to  $Q_1$ . There is an increase in price because both the increase in demand and decrease in supply cause price to rise. However, there has been a decrease in quantity because the decrease in supply is more than the increase in demand
- (Based on a graph with equal shift of demand and supply): The resulting effect is an increase in price from  $P_e$  to  $P_1$ , with no change in quantity. There is an increase in price because both the increase in demand and decrease in supply cause price to rise. However, there is no change in quantity because the increase in demand is cancelled out by an equal decrease in supply.
- (Based on a graph with shift of demand greater than shift of supply): The resulting effect is an increase in price from  $P_e$  to  $P_1$  and quantity from  $Q_e$  to  $Q_1$ . There is an increase in price because both the increase in demand and decrease in supply cause price to rise. There has also been an increase in quantity because the increase in demand is more than the decrease in supply.

Effect on kiwifruit growers' revenue:

- (Based on graph above, with shift of demand less than shift of supply): As the price increase from  $P_e$  to  $P_1$  is greater than the quantity decrease from  $Q_e$  to  $Q_1$ , kiwifruit growers' revenue increases [by  $(P_1 \times Q_1) - (P_e \times Q_e)$ ].
- (Based on graph with equal shift of demand and supply): The higher price of  $P_1$  with no change in quantity means that kiwifruit growers are now receiving more revenue for the same amount sold. For the same amount of kiwifruit of  $Q_e$  sold, they are now receiving  $(P_1 \times Q_e)$  more.
- (Based on graph with shift of demand greater than shift of supply): At the higher price of  $P_1$  kiwifruit growers are selling more kiwifruit, ie  $Q_1$  kg. This means kiwifruit growers' revenue increases [by  $(P_1 \times Q_1) - (P_e \times Q_e)$ ].

**Judgement Statement – Question Two**

N1	N2	A3	A4	M5	M6	E7	E8
<p>Shows partial understanding with only TWO of</p> <ul style="list-style-type: none"> <li>• shifts demand curve to right</li> <li>• identifies a rise in price</li> <li>• identifies a reason for the decrease in supply</li> <li>• states demand increases</li> <li>• states new quantity inc/ dec / no change</li> <li>• states kiwifruit growers' revenue increases.</li> </ul>	<p>Shows partial understanding with THREE of:</p> <ul style="list-style-type: none"> <li>• shifts demand curve to right</li> <li>• identifies a rise in price</li> <li>• identifies a reason for the decrease in supply</li> <li>• states demand increases</li> <li>• states new quantity inc/ dec / no change</li> <li>• states kiwifruit growers' revenue increases.</li> </ul>	<p>Shows understanding with FOUR of:</p> <ul style="list-style-type: none"> <li>• shifts demand curve to right</li> <li>• identifies a rise in price</li> <li>• identifies a reason for the decrease in supply</li> <li>• states demand increases</li> <li>• states new quantity inc/ dec / no change</li> <li>• states kiwifruit growers' revenue increases.</li> </ul>	<p>Shows breadth of understanding with FIVE of:</p> <ul style="list-style-type: none"> <li>• shifts demand curve to right</li> <li>• identifies a rise in price</li> <li>• identifies a reason for the decrease in supply</li> <li>• states demand increases</li> <li>• states new quantity inc/ dec / no change (consistent with graph)</li> <li>• states kiwifruit growers' revenue increases.</li> </ul>	<p>Detailed explanation of the combined changes in demand and supply with FOUR of:</p> <ul style="list-style-type: none"> <li>• shifts demand curve to right</li> <li>• explains why supply decreases</li> <li>• explains why demand curve shifts to right</li> <li>• explains combined effect on price or quantity</li> <li>• explains kiwifruit growers' revenue increases.</li> </ul>	<p>Detailed explanation of the combined changes in demand and supply.</p> <ul style="list-style-type: none"> <li>• Explains combined effect on price or quantity</li> </ul> <p>AND THREE of:</p> <ul style="list-style-type: none"> <li>• shifts demand curve to right</li> <li>• explains why supply decreases</li> <li>• explains why demand curve shifts to right</li> <li>• explains kiwifruit growers' revenue increases.</li> </ul>	<p>Comprehensive explanation of the combined changes in demand and supply on the market for kiwifruit, with ALL of:</p> <ul style="list-style-type: none"> <li>• links changes in price to the combined effect of changes in D and S</li> <li>• links increase / decrease or non-change in quantity to the extent of change in D and S curves</li> <li>• links increase in kiwifruit growers' revenue to increase in price combined with increased quantity sold (or no change or smaller fall).</li> </ul> <p>Reference to <math>P_e</math>, <math>P_1</math>, <math>Q_e</math>, <math>Q_1</math> and revenue areas are <b>mostly</b> correct and <b>mostly</b> consistent with changes shown on graph</p> <p>Only minor errors in use of economic terms.</p>	<p>Comprehensive explanation of the combined changes in demand and supply on the market for kiwifruit, with ALL of:</p> <ul style="list-style-type: none"> <li>• links changes to price to the combined effect of changes in D and S</li> <li>• links increase / decrease or non-change in quantity to the extent of change in D and S curves</li> <li>• links increase in kiwifruit growers' revenue to increase in price combined with increased quantity sold (or no change or smaller fall).</li> </ul> <p>Reference to <math>P_e</math>, <math>P_1</math>, <math>Q_e</math>, <math>Q_1</math> and revenue areas are <b>correct</b> and <b>consistent</b> with changes shown on graph</p> <p>Economic terms are correct.</p>

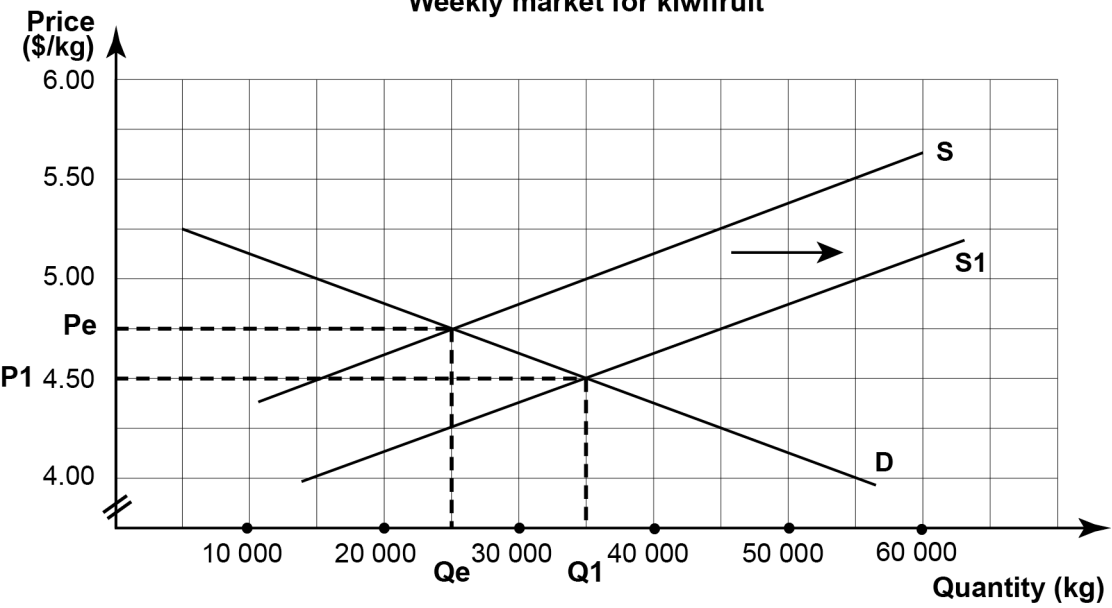
**N0** = No response; insufficient relevant evidence.

Question	Evidence
<p><b>THREE</b></p> <p>(a)</p>	<p style="text-align: center;"><b>The market for kiwifruit (per month)</b></p> <p>The graph shows the market for kiwifruit. The vertical axis represents Price (\$/kg) and the horizontal axis represents Quantity (kg). The equilibrium price is <math>P_e = 4.50</math> and the equilibrium quantity is <math>Q_e = 120\,000</math>. A maximum price is set at <math>P_{max} = 3.00</math>. At this price, the quantity supplied is <math>Q_s = 80\,000</math> and the quantity demanded is <math>Q_d = 240\,000</math>. The difference between <math>Q_d</math> and <math>Q_s</math> is labeled as a 'Shortage'.</p>
<p>(b)</p>	<ul style="list-style-type: none"> <li>• The price will fall from \$4.50 to the maximum price of \$3. This is because the government has set \$3 as the highest price per kg kiwifruit is allowed to be sold.</li> <li>• The quantity demanded increases from 120 000 kg to 240 000 kg per month. Consumers are willing and able to buy more because at \$3 a kg, kiwifruit is now more affordable.</li> <li>• Even though consumers' quantity demanded has increased, their actual consumption has decreased because the quantity supplied has decreased from 120 000 kg to 80 000 kg. Due to only 80 000 kg being supplied, consumers will only consume 80 000 kg. Consumer spending on kiwifruit is therefore <math>(80\,000 \times \\$3)</math> \$240 000 a decrease of \$300 000 from <math>(120\,000 \times \\$4.50)</math> \$540 000.</li> </ul> <p><b>Possible flow-on effects:</b></p> <ul style="list-style-type: none"> <li>• black market might develop as some producers will illegally sell kiwifruit at a higher price than maximum price, as some consumers will be willing to pay a higher price to obtain the limited quantities</li> <li>• some consumers will miss out as <math>Q_d</math> is greater than <math>Q_s</math>. Consumers might switch to other substitutes</li> <li>• rationing might happen – consumers are limited to a certain amount of kiwifruit</li> <li>• producers might switch to other more profitable crops</li> <li>• government might become unpopular for introducing the maximum price and get voted out</li> <li>• more people getting colds from reduced consumption of kiwifruit, increasing visits to doctors – so more spending on medical bills</li> <li>• more (pressure on) government health spending, leaving less for other areas such as education and defence.</li> </ul>

**Judgement Statement – Question Three**

N1	N2	A3	A4	M5	M6	E7	E8
<p>Shows partial understanding with only TWO of:</p> <ul style="list-style-type: none"> <li>• labels Pe and Qe correctly</li> <li>• labels Qd correctly</li> <li>• labels Qs correctly</li> <li>• labels shortage correctly.</li> </ul>	<p>Shows partial understanding with THREE of:</p> <ul style="list-style-type: none"> <li>• labels Pe and Qe correctly</li> <li>• labels Qd correctly</li> <li>• labels Qs correctly</li> <li>• labels shortage correctly.</li> </ul>	<p>Shows understanding with THREE of:</p> <ul style="list-style-type: none"> <li>• labels Pe and Qe correctly</li> <li>• labels Qd correctly</li> <li>• labels Qs correctly</li> <li>• labels shortage correctly</li> </ul> <p><i>AND states</i> TWO of:</p> <ul style="list-style-type: none"> <li>• price decreasing</li> <li>• quantity demanded increasing</li> <li>• actual quantity consumed decreasing</li> <li>• consumer spending decreasing.</li> </ul>	<p>Shows breadth of understanding with THREE of:</p> <ul style="list-style-type: none"> <li>• labels Pe and Qe correctly</li> <li>• labels Qd correctly</li> <li>• labels Qs correctly</li> <li>• labels shortage correctly</li> </ul> <p><i>AND states</i> THREE of:</p> <ul style="list-style-type: none"> <li>• price decreasing</li> <li>• quantity demanded increasing</li> <li>• actual quantity consumed decreasing</li> <li>• consumer spending decreasing.</li> </ul>	<p>Detailed explanation of effect of maximum price with ALL of:</p> <ul style="list-style-type: none"> <li>• labels Pe and Qe correctly</li> <li>• labels Qd correctly</li> <li>• labels Qs correctly</li> <li>• labels shortage correctly</li> </ul> <p><i>AND explains</i> TWO of:</p> <ul style="list-style-type: none"> <li>• price decreasing</li> <li>• quantity demanded increasing</li> <li>• actual quantity consumed decreasing</li> <li>• consumer spending decreasing.</li> <li>• ONE flow-on effect to society.</li> </ul>	<p>Detailed explanation of effect of maximum price with ALL of:</p> <ul style="list-style-type: none"> <li>• labels Pe and Qe correctly</li> <li>• labels Qd correctly</li> <li>• labels Qs correctly</li> <li>• labels shortage correctly</li> </ul> <p><i>AND explains</i> THREE of:</p> <ul style="list-style-type: none"> <li>• price decreasing</li> <li>• quantity demanded increasing</li> <li>• actual quantity consumed decreasing</li> <li>• consumer spending decreasing.</li> <li>• ONE flow-on effect to society.</li> </ul>	<p>Comprehensive explanation of the effect of maximum price by explaining THREE of:</p> <ul style="list-style-type: none"> <li>• change in consumer spending</li> <li>• change in price</li> <li>• change in quantity demanded</li> <li>• TWO flow-on effects to society.</li> </ul> <p>Figures <b>mostly</b> correct.</p>	<p>Comprehensive explanation of the effect of maximum price by explaining</p> <ul style="list-style-type: none"> <li>• change in consumer spending</li> <li>AND TWO of:</li> <li>• change in price</li> <li>• change in quantity demanded</li> <li>• TWO flow-on effects to society.</li> </ul> <p>Figures and economic terms are correct.</p>

**N0** = No response; insufficient relevant evidence.

Question	Evidence
<p><b>FOUR</b> (a)</p>	<p style="text-align: center;"><b>Weekly market for kiwifruit</b></p>  <p><b>Note:</b> S1 curve drawn \$0.50 below S curve (amount of subsidy).</p>
<p>(b)</p>	<p>(i) 25 000 kg, 35 000 kg                  (ii) \$4.75, \$4.50                  (iii) \$4.75, \$5.00                  (iv) <math>\\$0.50 \times 35\ 000 = \\$17\ 500</math></p>
<p>(c)</p>	<p>The price paid by consumers will fall from \$4.75 to \$4.50. The price received by kiwifruit growers will increase from \$4.75 to \$5, despite the price paid by consumers having lowered. This is because the subsidy provided by the government will mean that producers will get \$0.25 more per kg sold, making kiwifruit more profitable, so the growers will produce more at each and every price, hence lowering the price to consumers.</p> <p>The immediate effect on the government is an increase in spending by the amount of the cost of subsidy, which is \$17 500 a week (\$910 000 a year). This may mean decreased spending in other areas.</p> <p>In the longer term, however, assuming that the outcome of increased consumption of kiwifruit is a society with better health, the government may be able to save on health spending and have more to spend on other areas.</p>



### Judgement Statement – Question Four

N1	N2	A3	A4	M5	M6	E7	E8
<p>Shows partial understanding with only ONE of:</p> <ul style="list-style-type: none"> <li>• shifts the supply curve to the right</li> <li>• labels a lower price</li> <li>• labels a higher quantity.</li> </ul>	<p>Shows partial understanding with TWO of:</p> <ul style="list-style-type: none"> <li>• shifts the supply curve to the right</li> <li>• labels a lower price</li> <li>• labels a higher quantity.</li> </ul>	<p>Shows understanding with ALL of:</p> <ul style="list-style-type: none"> <li>• shifts the supply curve to the right</li> <li>• labels a lower price</li> <li>• labels a higher quantity.</li> </ul>	<p>Shows breadth of understanding with ALL of:</p> <ul style="list-style-type: none"> <li>• shifts the supply curve to the right <b>correctly</b></li> <li>• labels a lower price</li> <li>• labels a higher quantity</li> </ul> <p>AND TWO of:</p> <ul style="list-style-type: none"> <li>• quantity consumers buy before and after</li> <li>• price consumers pay before and after</li> <li>• price kiwifruit growers receive before and after</li> <li>• cost of subsidy to government.</li> </ul> <p>(Allow for carry-through errors.)</p>	<p>Detailed explanation of effect of subsidy.</p> <ul style="list-style-type: none"> <li>• Shifts S to the right correctly</li> </ul> <p>AND</p> <p>Explains by correctly stating THREE of:</p> <ul style="list-style-type: none"> <li>• quantity consumers buy before and after</li> <li>• price consumers pay before and after</li> <li>• price kiwifruit growers receive before and after</li> <li>• cost of subsidy to government.</li> </ul>	<p>Detailed explanation of effect of subsidy.</p> <ul style="list-style-type: none"> <li>• Shifts S to the right correctly</li> </ul> <p>AND</p> <p>Explains by correctly stating FOUR of:</p> <ul style="list-style-type: none"> <li>• quantity consumers buy before and after</li> <li>• price consumers pay before and after</li> <li>• price kiwifruit growers receive before and after</li> <li>• cost of subsidy to government.</li> </ul>	<p>Comprehensive explanation of the effect of subsidy by explaining:</p> <ul style="list-style-type: none"> <li>• change in price consumers pay before and after</li> <li>• change in price kiwifruit growers receive before and after</li> <li>• cost of subsidy to government</li> <li>• the longer term benefit to government.</li> </ul> <p>Figures must be correct on page before (but do not need to be repeated here) Only minor errors in use of economic terms.</p>	<p>Comprehensive explanation of the effect of subsidy by explaining:</p> <ul style="list-style-type: none"> <li>• change in price consumers pay before and after</li> <li>• change in price kiwifruit growers receive before and after</li> <li>• cost of subsidy to government</li> <li>• the longer term benefit to government.</li> </ul> <p>Figures and economic terms are <b>correct</b>, and at least two figures cited in the paragraph.</p>

**N0** = No response; insufficient relevant evidence.

### Judgement Statement – Overall

	Not Achieved	Achievement	Achievement with Merit	Achievement with Excellence
Score range	0 – 8	9 – 17	18 – 24	25 – 32