

1	(a) (i) 560  (ii) 76.8(0)  (b) 150	1  2  2	B1 for 19.2 or 3.2 oe soi  B1 for figs $\frac{270}{1.8}$ seen
2	(a) (i) \$720.7 – \$721.1  (ii) \$1.45  (b) (i) \$8272  (ii) 8560 - 8562  (iii) Lydia by \$1.52, final answer, cao	2  1  2  1ft  2	M1 for $25200 \div 72 (=350)$ or $\frac{2.06}{72}$ or $\frac{72}{2.06}$  M1 for $8000 \times \frac{3.4}{100}$ or better  or C1 for Simone’s 8560 seen or C1 for Simone by \$8.28 final answer
3	(a) (i) 899  (ii) 33.5  (iii) 900  (b) 4.5	1  2  2  3	B1 for figs $\frac{2400 - 1596}{2400}$ oe  M1 for $x + \frac{20}{100}x = 1080$ or B1 for 120 seen  M2 for $600 + \frac{3R}{100} \times 600 = 681$ or M1 for $600 \times \frac{R}{100} = (681 - 600)$ and A1 for 13.5 or B1 for $\frac{600 \times (3)R}{100}$ soi
4	(a) 40  (b) 56.25  (c) (i) 225  (ii) 400	1  1  1  1	
5	(a) (i) 533.9(0) to 534  (ii) 1760  (b) (i) 3.75	2  3  2	M1 for $32 \times 5.20 + 0.15 \times 2450$  M1 for $409.6 - 28 \times 5.20 [= 264]$ M1 for ‘their 264’ $\div 0.15$  SC1 for an answer of 28.75, 28.7, 28.8, 15, 3.7, 3.8 or 0.0375

<b>6</b>	<b>(a) (i)</b>	30%	<b>2</b>	<b>M1</b> for figs(5625 ÷ 18 750) or <b>SC1</b> for 70(%) as final answer
	<b>(ii)</b>	305	<b>3</b>	<b>M1</b> for $(13125) \times \frac{22}{100}$ oe and <b>M1</b> for $\frac{18750 - \text{their} 2887.5}{52}$
	<b>(iii)</b>	15 000	<b>2</b>	<b>M1</b> for $x + \frac{25x}{100} = 18750$ oe or <b>B1</b> for ÷ 125
<b>7</b>	<b>(a)</b>	1240	<b>2</b>	<b>M1</b> for $8 \times 140 + 10 \times (8 + \frac{50}{100} \times 8)$ isw  After <b>B0</b> allow <b>SC1</b> for answer of 1160 or 1280
	<b>(b)</b>	276	<b>2</b>	<b>B1</b> for $240 \times 0.03 \times 5$ oe seen
	<b>(c)</b>	170	<b>3</b>	<b>B2</b> for 420 or 144.5(0) Or <b>M1</b> for $357 \div 0.85$ or $357 - (250 \times 0.85)$
<b>8</b>	<b>(a)</b>	59.3(0)	<b>1</b>	
	<b>(b)</b>			
<b>9</b>	<b>(a) (i) (a)</b>	396	<b>2</b>	<b>M1</b> for $\frac{60}{100} \times 360 + 15 \times 12$ or  <b>B1</b> for $\frac{60}{100} \times 360$ seen
	<b>(b)</b>	110 isw	<b>1ft</b>	
	<b>(ii)</b>	770	<b>2</b>	<b>M1</b> for $x - \frac{26}{100}x = 569.80$ oe or <b>B1</b> for ÷ by figs 74
<b>10</b>	<b>(a)</b>	Ruled straight line through (0, 0) and (100, 56)	<b>1</b>	
	<b>(b)</b>	35 to 37	<b>1</b>	
<b>11</b>	<b>(a)</b>	41 472 or 41 470 or 41 500 cao	<b>1</b>	
	<b>(b)</b>	\$65 ( not from 64.84 rounded )	<b>2</b>	<b>M1</b> for $1.05x = 68.25$ soi
	<b>(c)</b>	7.50 – 7.60	<b>3</b>	[ <b>M2</b> for $1.05 \times 1.024$ oe] or <b>M1</b> for $40500 \times \text{their } 65$ [=2 632 500] and <b>M1</b> <i>their</i> $41\,472 \times 68.25$ [= 2 830 464]

<b>12</b>	<b>(a) (i)</b>	3.6	<b>1</b>			
	<b>(ii)</b>	109			<b>2</b>	B1 for $756 + 24 \times 922.25$ soi or SC1 for $\frac{24 \times 922.25}{21\,000} \times 100$ oe
	<b>(b)</b>	730.25			<b>3</b>	B1 for $\frac{127 \times 21\,000}{100}$ soi M1 for $381 + 36x =$ their total amount oe
	<b>(c)</b>	1000	<b>3</b>	M1 for $x + \frac{5x}{100} = 21\,000$ oe and M1 for $21\,000 -$ their 2016 price oe		
13(a)	150	<a href="https://www.youtube.com/channel/UCW-jBxLOJCu89Gdp_zlJKMg?app=desktop">https://www.youtube.com/channel/UCW-jBxLOJCu89Gdp_zlJKMg?app=desktop</a>				
13(b)	2	<b>2</b>	M1 for $(162 - 150) = 150 \times \frac{x}{100} \times 4$ oe After 0 scored, C1 for answer 27			

14(a)	9370	<b>3</b>	M1 for $(1199 \times 5)$ or B1 for 5995 or 2398 <u>and</u> 3597 <u>and</u> M1 for $14(55 \times 2 + 40 \times 3)$ oe or B1 for 3220 or 1540 <u>and</u> 1680
14(b)	Bonus [cars] and 67	<b>3</b>	B2 for 67 or answer Bonus <u>with</u> 588 <u>and</u> 655 seen as total charged or M1 for $42 \times 14$ or $20 \times 14 + 750 \times 0.5$ [0]

15(a)	77	<b>1</b>	
15(b)	20	<b>2</b>	M1 for a wholly correct method, such as $\frac{15000 - 12000}{15000} \times 100$

16(a)	A by 240	<b>4</b>	B3 for 4980 <b>and</b> 5220 seen or difference = 240 <b>Or</b> M1 for $4500 \div 5$ and $12 \times 340$ oe <b>and</b> M1 for $0.12 \times 4500$ and $24 \times 195$ oe <b>and</b> M1 for the difference between <i>their</i> 5220 and <i>their</i> 4980
16(b)	10.61 cao	<b>3</b>	M2 for $240 \div 100 \times 5.2 \times 0.85$ soi <b>Or</b> M1 for $240 \div 100 \times 5.2$ or <i>their</i> $12.48 \times 0.85$ or $5.2 \times 0.85$

17(a)	25 cao	1	
18(a)	2068.5[0]	3	<b>M1</b> for $32\,500 \times 0.91$ oe <b>M1</b> for <i>their</i> $29\,575 \times 0.78$ oe
18(b)	1311.96 cao	3	<b>M2</b> for $1200 \times \left(1 + \frac{1.8}{100}\right)^5$ oe or <b>M1</b> for $1200 \times \left(1 + \frac{1.8}{100}\right)^k$ oe where $k > 1$
18(c)	750	3	<b>M2</b> for $\left(\frac{100 + 5 \times 2.1}{100}\right)^x = 828.75$ soi or <b>B1</b> for $5 \times 2.1[\%]$ or better soi
19(a)	646	2	<b>M1</b> for $\frac{15}{100} \times 760$ oe or $\frac{85}{100} \times 760$ oe
19(b)	1344	2	<b>M1</b> for $1200 \times \frac{2}{100} \times 6$ oe isw
20(a)	2356	2	<b>M1</b> for product of any three of 15.20, $7\frac{3}{4}$ , 5 and 4
20(b)	14	2	<b>M1</b> for $\frac{25700 - 22102}{25700} [\times 100]$ or $\frac{22102}{25700} \times 100$ After 0 scored, <b>SC1</b> for answer 86
20(c)	375	3	<b>M2</b> for $\frac{465.75}{1.08 \times 1.15}$ oe or <b>B1</b> for 1.08 or 1.15 oe seen After 0 scored, <b>SC1</b> for answer 379 or 378.7[0] or 378.65 to 378.66
20(d)	601.75 or 601.76	3	<b>M2</b> for $8500 \times \left(1 + \frac{3.1}{100}\right)^5$ oe or <b>M1</b> for $8500 \times \left(1 + \frac{3.1}{100}\right)^k$ oe where $k > 1$
21(a)	6	2	<b>M1</b> for $\frac{22790 - 21500}{21500} [\times 100]$ oe or $\frac{22790}{21500} \times 100$ oe
21(b)	1354.5[0]	2	<b>M1</b> for $[1260 +] \frac{3 \times 2.5}{100} \times 1260$ oe

22	400	2	<b>M1</b> for $\frac{200-40}{40} [\times 100]$ or for $\frac{200}{40} \times 100$
23(a)	13 950 final answer	3	<b>M1</b> for $13\,000 \times 0.15$ oe <b>M1</b> for $24 \times 500$ oe
23(b)	325	2	<b>M1</b> for $\frac{100-12}{100}x = 286$ soi
23(c)	5.51 or 5.52	4	<b>M2</b> for $1500 \times \left(1 + \frac{1.9}{100}\right)^5$ oe or <b>M1</b> for $1500 \times \left(1 + \frac{1.9}{100}\right)^k$ oe where $k > 1$ or after M0, <b>SC1</b> for $1500 \times \left(1 + \frac{1.9}{100}\right)^5 + 1500$ AND <b>M1</b> for $\frac{1500 \times 1.9 \times 5}{100} + 1500$ oe
24	160	2	<b>M1</b> for $\frac{(100-25)}{100}x = 120$ oe soi
25(a)	66.3[0]	2	<b>M1</b> for $78 - \frac{15}{100} \times 78$ oe or <b>B1</b> for 11.7[0]
25(b)	30.6[0]	2	<b>M1</b> for $100 \times 0.85 - 58.99$ or $\frac{58.99}{0.85}$
25(c)	Pietro and 5.48 or 5.49	4	<b>M1</b> for $3500 + \frac{3500 \times 2.1 \times 4}{100}$ oe AND <b>M2</b> for $3500 \left(1 + \frac{2}{100}\right)^4$ oe or <b>M1</b> for $3500 \left(1 + \frac{2}{100}\right)^k$ oe where $k > 1$ or after M0, <b>SC1</b> for $3500 \left(1 + \frac{2}{100}\right)^4 + 3500$
26	20	2	<b>M1</b> for $\frac{200-160}{200} [\times 100]$ oe or $\frac{160}{200} \times 100$ oe
27(a)(i)	1980	2	<b>M1</b> for $2250 - \frac{12}{100} \times 2250$ oe or <b>B1</b> for 270 After 0 scored, <b>SC1</b> for answer 3960

28(a)(i)	252	2	<b>M1</b> for $420 \times 3 \times \frac{20}{100}$ oe or <b>B1</b> for 84 seen or 252 seen
28(a)(ii)	12.6[0]	3	<b>B2</b> for answer 100.8[0] or <b>M2</b> for $\frac{85.68}{8} \times \frac{100}{100-15}$ oe or <b>M1</b> for $\frac{100-15}{100}x = 85.68[\div 8]$ soi
29(a)(i)	1638[.00]	1	
29(a)(ii)	14.3 or 14.28 to 14.29	2	<b>M1</b> for $\frac{96-84}{84}[\times 100]$ oe or $\frac{96}{84} \times 100 [-100]$ oe
29(b)	1020 nfw	3	<b>M2</b> for $1200 \times \left(1 - \frac{15}{100}\right)$ oe OR <b>M1</b> for $(1200 \times 96) - \frac{15}{100} \times (1200 \times 96)$ oe or <b>B1</b> for 17280 (cents) or (\$)172.8[0] <b>M1</b> for $\frac{their 97920}{96}$ oe  After 0 scored, <b>SC2</b> for answer 1020 from consistent use of figs 96
29(c)	10.1[0]	2	<b>M1</b> for $1.10 \times \frac{3.5-1}{0.5}$ oe
29(d)	12.5[0]	2	<b>M1</b> for $\frac{100+7.2}{100}x = 13.4[0]$ soi