

Percentages Ratio Proportion Time 1 Mixed Answers

1)	(a)	11:14	1	
	(b)	50	2	M1 for $(220 + 280) \div 10$ o.e.
	(c)	12	2	M1 for $21 \div (4 + 3) \times 4$ (or 3) o.e.
	(d)	280	3	M1 for $0.35 \times$ their 500 (175) M1 dependent $\times 1.60$
	(e)	240	2	M1 for dividing 264 by 1.1 oe
2)	(a) (i)	1088	2	M1 for $3136 \div (17 + 32)$ soi by 64 or 2048
	(ii)	Their 1088×2 and $(3136 - \text{their } 1088) \times 4.5$ $2176 + 9216$	M1 E1	2048 may be 32×64
	(b)	11.9 to 11.9031 www	3	M2 for $\frac{(12748 - 11392) \times 100}{11392}$ oe or M1 for $\frac{12748 - 11392}{11392}$ soi by 0.1119 or $\frac{12748}{11392} (\times 100)$ soi by 111.9 or 112 or 1.119
	(c)	8900	3	M2 for $11392 \div 1.28$ oe or M1 for $11392 = 128(\%)$ oe
3)	(a)	432	2	M1 for $756 \div 7 \times 4$ oe
	(b) (i)	8970	2	M1 for 7800×1.15 oe After 0 scored, SC1 for 1170 as answer
	(ii)	$\frac{\text{their } 9867(-7800)}{7800} (\times 100)$ or 1.15×1.10	M2	Their 9867 is their (b)(i) $\times 1.1$ Implied by 1.265 or 0.265 or 126.5 or M1 for their (b)(i) $\times 1.10$ (9867 seen or 2067 seen)
		26.5 % cao	A1	www3
	(c)	8100	3	M2 for $9720 \div 1.2$ oe or M1 for $120\% = 9720$ oe
	(d)	562.43 or 562 or 562.4(0) or 562.432	3	M2 for 500×1.04^3 or alt complete method or M1 for 1.04^2 or 1.04^3 oe soi e.g. \$540.80 or 562.(43..) seen in working

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4)	(a) $200 \div 10 \times 3$ oe $200 \div 10 \times 2$ oe	M1 M1	
	(b) 65	2	M1 for $\frac{39}{60} \times 100$ oe 35 is M0
	(c) 46	3	M2 for $36.80 \div 0.8$ oe or M1 for $80\% = 36.80$ oe
	(d) 0.6(0)	3	M2 for $5(x + 12) + 2x = 64.2$ oe or $(64.2 - 5 \times 12) \div 7$ or $5x + 2(x - 12) = 64.2$ oe or $(64.2 + 2 \times 12) \div 7$ or M1 for $y = x + 12$ and $5y + 2x = 64.2$ or $y = x - 12$ and $5x + 2y = 64.2$ After M0, SC1 for $k(x \pm 12)$ seen
5)	(a) (0)700 or 7 am	2	M1 $100 - (5 \times \text{their}(22 - 6) + \text{their}(13 - 8))$ or better soi
	(b) 1700 or 5 pm	1	
6)	(a) (i) $\frac{1380}{62 + 53} \times 62$ (ii) 7.27 (7.271 to 7.272) (iii) 42	1 1 2	Allow 115 for $62 + 53$ M1 for $\frac{3150}{75}$ oe
7)	(a) 805 (b) 50 (c) (i) 90 (ii) 5 : 2 (d) 6.5(0) (e) 10 www	2 2 2 3 2 3	M1 for $110 \times 5 + 85 \times 3$ M1 for $750 - 120 \times 5$ M1 for $150 \div (3 + 2) \times 3$ M1 for 3×5 and 2×3 or $90\text{ft} \times 5$ and $(150 - 90\text{ft}) \times 3$ A1 for $450 : 180$ oe or 2.5:1 or 1:0.4 M1 for 5×1.3 oe M2 for $\frac{0.30}{3} \times 100$ oe (M1 for 0.30 or 30c) If M0 then SC1 for $\frac{0.3}{2.7} \times 100$ (implied by 11.1...%)

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8)	<table><tr><td rowspan="3">(a)</td><td>(i)</td><td>34.65</td><td>1</td><td></td></tr><tr><td>(ii)</td><td>41.58</td><td>2</td><td>M1 for 0.15×277.2 implied by 41.6 or 41.58 seen and not spoiled</td></tr><tr><td>(iii)</td><td>264</td><td>3</td><td>M2 for $277.2 \div (1 + 0.05)$ o.e. or M1 for recognition that $105(\%) = 277.20$</td></tr><tr><td rowspan="2">(b)</td><td>(i)</td><td>1000</td><td>2</td><td>M1 for $2200 \div (2 + 4 + 5) \times 5$</td></tr><tr><td>(ii)</td><td>3650</td><td>2</td><td>M1 for $2200 \div 44 \times 73$</td></tr></table>	(a)	(i)	34.65	1		(ii)	41.58	2	M1 for 0.15×277.2 implied by 41.6 or 41.58 seen and not spoiled	(iii)	264	3	M2 for $277.2 \div (1 + 0.05)$ o.e. or M1 for recognition that $105(\%) = 277.20$	(b)	(i)	1000	2	M1 for $2200 \div (2 + 4 + 5) \times 5$	(ii)	3650	2	M1 for $2200 \div 44 \times 73$	
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9)	9 h 12 min	3	M1 for 8×1.15 A1 for 9.2 B1 ft independent for their 9.2 correctly converted into hours and minutes																					