1	33	P1	for relating 24 to 8 parts, **or** (1 part =) 24 ÷ 8 (= 3) **or** 15 – 7 (= 8) **or** starts to use a build-up method, eg (8 :) 14 : 30	8 parts = 24
		P1	for (15 – 4) **and** (24 ÷ 8) **or** 15 × 3 (= 45) **and** 4 × 3 (= 12) **or** for 12 (: 21) : 45	
		A1	cao	

2	(a)	40	M1	2 ÷ (2+3) × 100 (=40) or build up to (and shows) 40:60 oe **or** for sight of $\frac{2}{5}$ oe **or** 100 ÷ 5 (=20)	
			A1	cao	
	(b)	20 : 80	M1	100 − 20 (=80) or 80 : 20 oe	
			A1	20 : 80 oe	Accept any equivalent ratio; award full marks if an acceptable ratio is given and then incorrectly simplified.

3	12.85 or 12.86 or 13.5(0)	P1	for 9 + 2 + 1 (=12)	Award this mark for sight of 4500, 1000 or 500
		P1	for working out how many lots of 175g are needed eg 6000 ÷ "12"× 2 ÷ 175 (=5.71..)	Process may lead to 5 or 6 instead of 5.71
		P1	for a complete process eg "5.71…" × 2.25 (=12.857..)	"5.71…" (ft) or a figure rounded or truncated eg "6"
		A1	for 12.85 or 12.86 or 13.5(0)	

4	14.5, 21	P1	for process to work with coordinates, eg 4 – (−3) (= 7) **or** 9 – 1 (= 8)	Accept in reverse order eg −3 − 4 (= −7) and negative distances throughout
		P1	for process to use ratio, eg "7" ÷ 2 (= 3.5) **or** "8" ÷ 2 (= 4) **or** "7" × 3(= 21) **or** "8" × 3 (= 24)	This mark is implied by 10.5 or 12 or 17.5 or 20
		P1	for complete process to find either the x or the y coordinate of N, eg "3.5" × 3 + 4 or "4" × 3 + 9 or "3.5" × 5 –3 or "4" × 5 + 1 **OR** to find both the required distances eg "3.5" × 3 (= 10.5) **and** "4" ×3 (= 12) **or** "21" ÷ 2 (= 10.5) **and** "24" ÷ 2 (= 12) **or** "3.5" × 5 (= 17.5) **and** "4" × 5 (= 20)	
		A1	oe	

5	60	P1	for 240 ÷ (5 + 3 + 2) (= 24)	
		P1	for complete process to find the number of cans of each drink eg 5 × "24" (= 120) and 3 × "24" (= 72) and 2 × "24" (= 48)	
		P1	for process to find the number of cans removed eg "72" ÷ 2 (= 36) and "48" ÷ 12 (= 4)	
		P1	for process to find percentage eg $\frac{"120"}{240-("36"+"4")} \times 100$ or $\frac{"120"}{"120"+("72"-"36")+("48"-"4")} \times 100$	
		A1	cao	
			Alternative	
		P1	for process to find proportion of lemonade and orange cans removed, eg $3 \times \frac{1}{2}$ (= $1\frac{1}{2}$) and $2 \times \frac{1}{12}$ (= $\frac{1}{6}$)	
		P1	for process to find proportion of lemonade and orange cans remaining, eg $3 - "1\frac{1}{2}" + 2 - "\frac{1}{6}"$ (= $3\frac{1}{3}$)	
		P1	for $5 + "3\frac{1}{3}"$ (= $8\frac{1}{3}$)	
		P1	for process to find percentage eg $(5 \div "8\frac{1}{3}") \times 100$	
		A1	cao	

6	(a)(i)	2 : 6 : 5	P1	for process to compare ratios, eg $a : b = 2 : 6$ or $b : c = 3 : 2.5$	Could use 3 or any common multiple of 3 and 6
			A1	for 2 : 6 : 5 oe	
	(ii)	$\frac{2}{13}$	M1	for process to find fraction, eg $\frac{[2]}{[2+6+5]}$ or for $\frac{a}{a+b+c}$	
			A1	for $\frac{2}{13}$ oe or ft (a)(i)	
	(b)	1 : 10	P1	for process to express all numbers in terms of one number, eg $p = 5 \times 2m$ (= $10m$) or $m = \frac{n}{2}$ **or** for $2m = \frac{p}{5}$ **or** for assigning values in the ratio given, eg $m = 1$, $n = 2$, $p = 10$ **or** for $n : m : p = 2 : 1 : 10$ oe **or** 10 : 1 oe	
			A1	for 1 : 10 oe	