

1	10^6	B1	
	Additional Guidance		

Question	Answer	Mark	Comments
2	$\frac{7}{5}$ or $1\frac{2}{5}$	B2	B1 28 and 20 or $2\frac{1}{3}$ and $1\frac{2}{3}$ oe mixed numbers or fractions with common denominator or correct unsimplified fraction or mixed number eg $\frac{14}{10}$ or $1\frac{8}{20}$ or correct simplification of a fraction where at least one of the values is 28 or 20 and the other is not 12 SC1 $\frac{5}{7}$
	Additional Guidance		
	Allow a fractional numerator and/or denominator in a correct fraction eg $\frac{2\frac{1}{3}}{\frac{8}{12}}$ or $\frac{\frac{28}{12}}{\frac{5}{3}}$		B1
	$\frac{2.4}{1.8}$ simplified to $\frac{4}{3}$		B0
	Ignore an attempt to convert $\frac{7}{5}$ to an improper fraction eg $\frac{7}{5} = 1\frac{2}{7}$ on the answer line		B2
	7 : 5 with no working worthy of B1		B0

Q	Answer	Mark	Comments
3	50 cm	B1	

Q	Answer	Mark	Comments
4	$80 \times x$ or $80x$ or $x \times 80$ or $x80$ or $x \div 60$ or $\frac{x}{60}$ or $\frac{1}{60}x$ or $x\frac{1}{60}$ or $80 \div 60$ or $\frac{80}{60}$	M1	teabags per hour boxes per minute
	$\frac{80x}{60} \left(= \frac{4x}{3} \right)$ or $80 \div 60 \times x \left(= \frac{4x}{3} \right)$	A1	oe showing 80 and 60 and x eg $\frac{80 \times x}{60} \left(= \frac{4x}{3} \right)$ or $x\frac{80}{60} \left(= \frac{4x}{3} \right)$ or $\frac{80}{60} \times x \left(= \frac{4x}{3} \right)$ or $80x \div 60 \left(= \frac{4x}{3} \right)$
	Additional Guidance		
	M1 may be awarded for correct work with no answer or incorrect answer, even if this is seen amongst multiple attempts		
	Do not allow M1 if only seen embedded in an incorrect expression or calculation eg $80x \times 4 = 320x$		M0
	$60 \times \frac{4x}{3} = 80x$ (M1 allowed as $80x$ is not embedded in an incorrect expression or calculation, A0 because using the given answer)		M1A0
	Condone $x = 80 \div 60$		M1A0
	$\frac{80x}{60} \left(= \frac{4x}{3} \right)$		M1A1
	$\frac{80}{60} = \frac{4}{3}$ and $\frac{4}{3} \times x \left(= \frac{4x}{3} \right)$ $\frac{80}{60} = \frac{4}{3}$ and $\frac{4x}{3}$		M1A1 M1A0
	No equivalents allowed for M1		
	Ignore units		
	Condone 1.33(...) for $\frac{4}{3}$		
	Ignore non-contradictory working after M1A1 seen		
Q	Answer	Mark	Comments
5	$1 \text{ cm}^2 = 100 \text{ mm}^2$	B1	

Q	Answer	Mark	Comments
6	Alternative method 1: works out concrete poured in 30 minutes		
	$10.9 \times 30 \times 60 \div 1000$ or 19.6(2) or $10.9 \times 30 \times 60$ or 19620 and 20×1000 or 20000	M3	oe full method eg $10.9 \times 1800 \div 1000$ or $30 \times 654 \div 1000$ or $19620 \div 1000$ M2 two correct steps eg $10.9 \times 30 \times 60$ or 19620 or $10.9 \times 30 \div 1000$ or 0.327 or $10.9 \times 60 \div 1000$ or 0.654 or $30 \times 60 \div 1000$ or 1.8 M1 one correct step eg 10.9×30 or 327 or 10.9×60 or 654 or $10.9 \div 1000$ or 0.0109 or 30×60 or 1800 or $30 \div 1000$ or 0.03 or $60 \div 1000$ or 0.06 or 20×1000 or 20000
	19.6(2) and No or 19620 and 20000 and No	A1	oe eg 19.62 so it isn't

6 cont	Alternative method 2: works out time for 20 tonnes at given rate		
	$20 \times 1000 \div 10.9 \div 60$ or $[30.5, 30.6]$ or $20 \times 1000 \div 10.9$ or $[1834, 1835]$ and 30×60 or 1800	M3	oe full method eg $20000 \div 10.9 \div 60$ or $20 \times [91.7, 91.74312] \div 60$ or $[1834, 1835] \div 60$ M2 two correct steps eg $20 \times 1000 \div 10.9$ or $[1834, 1835]$ or $20 \times 1000 \div 60$ or $333.(\dots)$ or $20 \div 10.9 \div 60$ or $[0.0305, 0.031]$ or $1000 \div 10.9 \div 60$ or $[1.52, 1.53]$ M1 one correct step eg 20×1000 or 20000 or $20 \div 10.9$ or $[1.83, 1.835]$ or $20 \div 60$ or $0.33(\dots)$ or $1000 \div 10.9$ or $[91.7, 91.74312]$ or $1000 \div 60$ or $[16.6, 16.7]$ or 10.9×60 or 654 or 30×60 or 1800
	$[30.5, 30.6]$ and No or $[1834, 1835]$ and 1800 and No	A1	oe eg 30.6 so it isn't
	Additional Guidance		
	Up to M2 may be awarded for correct work with no answer or incorrect answer, even if this is seen amongst multiple attempts		
	M3 or M2 will usually be seen in stages eg Alt 1 $10.9 \times 30 = 327$ $327 \times 60 = 19620$ $19620 \div 1000$		M3
	M2 or M1 may be seen embedded in more than one step (extra steps could be incorrect)		
	No may be indicated by selecting the box or a statement in the working lines		
	No cannot be implied only by an inequality		
	A correct value is sufficient for showing working eg Alt 1 19.62 and No		M3A1
	Ignore their units throughout		
	Other approaches are possible eg works out rate in kg per s for 20 tonnes in 30 minutes and compares to 10.9		