

Question	Answer	Marks	AO Element	Notes	Guidance
1	288	1			
2	32	3		M2 for $\frac{7}{9} \times \frac{4}{7} \times 72$ OR M1 for $\frac{2}{9} \times 72$ or $\frac{7}{9} \times 72$ and M1dep for $\frac{4}{7} \times \text{their } 56$ or $\frac{3}{7} \times \text{their } 56$	
3	$\frac{49}{84}$	1			
4(a)	$\frac{k}{15k}$ cao	1			
4(b)	$\frac{a}{b}$, where $\frac{1}{15} < \frac{a}{b} < \frac{2}{15}$	1			

Question	Answer	Marks	AO Element	Notes	Guidance
5	$\frac{7}{15}$ cao	3		M2 for $\frac{5}{15} + \frac{3}{15}$ or $\frac{8k}{15k}$ or $\frac{320}{600}$ or $\frac{280}{600}$ or $\frac{7k}{15k}$, <i>k</i> must be an integer or M1 for $\frac{1}{5} + \frac{1}{3}$ or 120 + 200 or 320 or 280 or 600 – 120 – 200 oe If M0 scored, SC1 for answer of $\frac{47}{100}$, $\frac{467}{1000}$, $\frac{4667}{10000}$	
6	$\frac{1}{5}$ cao	1			
7	420	2		M1 for $\frac{330}{11} \times 14$ oe	
8	M1 for $\frac{2}{6} + \frac{5}{6}$ oe A1 for $1\frac{1}{6}$ cao	2		i.e. correct fractions with common denominator 6 <i>k</i>	

Question	Answer	Marks	AO Element	Notes	Guidance
9	M1 for $\frac{9}{21}$ and $\frac{2}{21}$ oe A1 for $\frac{1}{3}$ cao and correct working	2		Allow any correct denominator $21k$	
10	B1 for $\frac{25}{6}$ or $\frac{15}{8}$ $3\frac{1}{6} - \frac{7}{8}$ M1 for $\frac{100}{24}$ and $\frac{45}{24}$ oe [3] $\frac{4}{24}$ and $\frac{21}{24}$ A1 for $2\frac{7}{24}$ final answer	3		Correct step for dealing with mixed numbers Allow $\frac{25k}{6k}$ or $\frac{15k}{8k}$ Correct method to find common denominator e.g. $4\frac{4}{24}$ and $1\frac{21}{24}$	
11	B1 for $\frac{33}{8}$ or $\frac{17}{6}$ $2\frac{1}{8} - \frac{5}{6}$ M1 for $\frac{99}{24}$ and $\frac{68}{24}$ [2] $\frac{3}{24} - \frac{20}{24}$ A1 for $1\frac{7}{24}$ cao and correct working	3		Correct step for dealing with mixed numbers Allow $\frac{33k}{8k}$ or $\frac{17k}{6k}$ Correct method to find common denominator e.g. $4\frac{3}{24}$ and $2\frac{20}{24}$	

Question	Answer	Marks	AO Element	Notes	Guidance
12	M1 for $\frac{7}{3}$ oe improper fraction or $\frac{k}{3} \times \frac{11}{14}$ where $k > 3$ A2 for $1\frac{5}{6}$ cao	3		A1 for $\frac{77}{42}$ or $\frac{11}{6}$ or $1\frac{35}{42}$	
13	M2 for $2 \times 630 + 3 \times \frac{5}{8} \times 630$ A1 for 2441.25	3		M1 for $[3 \times] \frac{5}{8} \times 630$	
14	M1 for $\frac{25 \text{ or } 55}{30}$ and $\frac{12}{30}$ A2 for $2\frac{7}{30}$ cao	3		Accept $\frac{25k \text{ or } 55k}{30k}$ and $\frac{12k}{30k}$ A1 for $\frac{67k}{30k}$ or $1\frac{37k}{30k}$	
15	B1 for $\frac{11}{8} \left[-\frac{5}{6} \right] \quad \frac{3}{8} + \frac{1}{6}$ M1 for $\frac{33}{24}$ and $\frac{20}{24} \quad \frac{9}{24}$ and $\frac{4}{24}$ A1 for $\frac{13}{24}$ cao	3		B1 for correct step for dealing with mixed number. Allow $\frac{11k}{8k}$ M1 for correct method to find common denominator e.g. $1\frac{9}{24}$ and $\frac{20}{24}$	

Question	Answer	Marks	AO Element	Notes	Guidance
16	M1 for $\frac{2}{9} \times \frac{6}{5}$ or $\frac{4}{18} \div \frac{15}{18}$ oe A1 for $\frac{4}{15}$ cao	2			
17	$\frac{3}{350}$	2		B1 for correct fraction not in lowest terms	
18	435	3		M2 for $3000 \times \left(1 - \frac{48}{100} - \frac{3}{8}\right)$ oe or B2 for for 2565, or 1440 and 1125 or 1875 and 1440 or 1560 and 1125 or M1 for $1 - \frac{48}{100} - \frac{3}{8}$ or $3000 \times \left(\frac{48}{100} + \frac{3}{8}\right)$ oe or B1 for 1440 or 1125 or 1560 or 1875 If 0 scored SC1 for answer 975	
19	$\frac{27}{99}$ oe fraction	1			

Question	Answer	Marks	AO Element	Notes	Guidance
20	$\frac{4}{99}$ cao	1			
21	$\frac{37}{99}$ oe fraction	1			
22	M1 for 47.77... – 4.77... oe A1 for $\frac{43}{90}$	2		Allow equivalent fractions If M0 then SC1 for $\frac{43}{90}$ or equivalent fraction with no/insufficient working	
23	$\frac{23}{99}$	1			
[Total: 48]					