

Q1 june 2017

8	(a)		$\frac{15}{32}$	B1	oe	
	(b)		$\frac{5}{12}$	M1	uses a correct common denominator with at least one correct matching numerator e.g. $\frac{8}{12}$, $\frac{3}{12}$	
				A1		

Q2 june 2018

4		$\frac{3}{9}$	B1	for $\frac{3}{9}$ accept $\frac{1}{3}$
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Q3 june 2018

19	(a)	$\frac{95}{28}$	M1	for a method to add using common denominators with at least one fraction correct (matching numerator with common denominator) eg $\frac{60}{28} + \frac{35}{28}$ or $(2)\frac{4}{28} + (1)\frac{7}{28}$	Use of decimals gets no credit unless it leads to a correct fraction
			A1	$\frac{95}{28}$ oe eg $3\frac{11}{28}$	
	(b)	$1\frac{3}{5}$	M1	for $\frac{6}{5} \times \frac{4}{3}$ or $\frac{24}{20} \div \frac{15}{20}$ or $\frac{8}{5}$ oe eg $1\frac{9}{15}$	Use of decimals gets no credit unless it leads to a correct fraction
			A1	cao	

Q4 june 2019

2		73	B1	cao
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Q5 june 2019

8	$\frac{1}{4}, \frac{1}{3}, \frac{1}{2}, \frac{7}{12}, \frac{3}{4}$	M1	converts fractions to a common equivalent form, at least two conversions correct eg fractions with a denominator of 12, decimals or percentages, or any 4 fractions in correct order	0.25, 0.33(...), 0.5, 0.58(...), 0.75
		A1	cao	Accept list in reverse order for this mark Accept expressed in equivalent decimals or percentages or any other appropriate form or mixed forms

Q6 june 2019

14	(a)	14	B1	for 14
	(b)	Explanation	C1	for explanation Acceptable examples she divided by 2 but should have multiplied by 2 there are 96 halves in 48 $48 \times 2 = 96$ Not acceptable examples $24 \times 2 = 48$

Q7 june 2019

19	(a)	$\frac{7}{15}$	M1	for suitable common denominator with at least one fraction out of two correct, eg $\frac{10}{15} - \frac{3}{15}$ oe
			A1	oe
	(b)	$\frac{1}{2}$	M1	for method to multiply fractions, eg $\frac{2 \times 3}{3 \times 4}, \frac{8 \times 9}{12 \times 12}$ or to simplify, $\frac{1}{3} \times \frac{3}{2}$ or $\frac{2}{1} \times \frac{1}{4}$ OR for an answer equivalent to $\frac{1}{2}$ (unsimplified) eg $\frac{2}{4}, 0.5$
			A1	cao

Q8 june 2020

10	660	P1	for a process to work out the number of large marbles eg $12 \div 4 (=3)$ or the number of small marbles eg $12 - [\text{number of large marbles}]$ or $12 \times (1 - \frac{1}{4}) (=9)$	[number of large marbles] could come from an incorrect method for finding $\frac{1}{4}$ of 12
		P1	(dep) for a process to work out the weight of large marbles eg $"3" \times 70 (=210)$ or to work out the weight of small marbles eg $"9" \times 50 (=450)$	
		P1	for a complete process eg $(12 \div 4) \times 70 + 12 \times (1 - \frac{1}{4}) \times 50$ oe	
		A1	cao	

Q9 june 2020

21	Shown	M1	for conversion to improper fractions eg $\frac{7}{3}$ or $\frac{15}{4}$	Need not be shown with operators
		M1	(dep) for method to multiply fractions, eg. $\frac{7 \times 15}{3 \times 4} (= \frac{105}{12})$ or $\frac{28 \times 45}{12 \times 12} (= \frac{1260}{144})$ oe	
		C1	for complete working showing each stage as far as $\frac{35}{4}$ or $8 \frac{9}{12}$	

Q10 june 2022

12	(a)	$\frac{7}{12}$	M1	for finding two fractions with a correct common denominator, with at least one correct corresponding numerator, eg. $\frac{5}{12}, \frac{2}{12}$	
			A1	for $\frac{7}{12}$ oe eg $\frac{14}{24}, \frac{21}{36}, \frac{28}{48}, \frac{35}{60}, \frac{42}{72}, \dots$	Ignore errors in cancelling following sight of an equivalent fraction to $\frac{7}{12}$
	(b)	$\frac{3}{16}$	M1	for method to multiply fractions, eg $\frac{3 \times 5}{10 \times 8} (= \frac{15}{80})$ or simplifies the calculation eg $\frac{3}{2} \times \frac{1}{8}$ or for an answer equivalent to $\frac{3}{16}$ unsimplified	
			A1	cao	

Q11 june 2022

20	$\frac{39}{88}$	M1	for finding the gap (A) $1 - \frac{5}{8} (= \frac{3}{8} = \frac{33}{88})$ or (C) $1 - \frac{9}{11} (= \frac{2}{11} = \frac{16}{88})$ or $\frac{5}{8} + \frac{9}{11} (= \frac{55}{88} + \frac{72}{88} = \frac{127}{88})$	
		M1	for $\frac{9}{11} - \frac{3}{8} (= \frac{72}{88} - \frac{33}{88})$ or $\frac{5}{8} - \frac{2}{11} (= \frac{55}{88} - \frac{16}{88})$ or $1 - \frac{3}{8} - \frac{2}{11} (= 1 - \frac{33}{88} - \frac{16}{88})$ oe or $\frac{5}{8} + \frac{9}{11} - 1 (= \frac{55}{88} + \frac{72}{88} - 1)$	
		A1	oe	

Q12 june 2023

2	$\frac{3}{10}$	B1	or any equivalent fraction	3 : 10 or 0.3 or 30% get no marks
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Q13 june 2023

14	(a)	27	B1	cao	
	(b)	$\frac{2}{7}$	B1	or any equivalent fraction	
	(c)	No (supported)	P1	for method to find the number of children on Friday eg 0.7×500 oe (= 350)	
			P1	for method to find the number of children on Saturday eg $720 \div 8 \times 5$ oe (= 450)	
			C1	for No with correct figures, eg No and 350 and 450 or No and 100 more on Saturday	Award 0 marks for a correct answer with no supportive working.

Q14 june 2023

15	$\frac{5}{14}$	M1	for method to multiply fractions, eg $\frac{6 \times 5}{7 \times 12}$ or to simplify, eg $\frac{1}{7} \times \frac{5}{2}$ OR for a fractional answer equivalent to $\frac{5}{14}$	$\frac{30}{84}, \frac{15}{42}, \frac{10}{28}$
		A1	cao	

Q15 june 2023

21	$4\frac{7}{8}$	M2	for a complete method, eg $7 - 2 + \frac{3}{8} - \frac{4}{8}$ condoning error with one numerator or for $\frac{59}{8} - \frac{5}{2} = \frac{59}{8} - \frac{20}{8} (= \frac{39}{8})$ with no more than one error OR for an answer of 4.875	
		(M1)	for finding two fractions with a correct common denominator, with at least one correct corresponding numerator, eg $\frac{3}{8}, \frac{4}{8}$ or for converting both to improper fractions, eg $\frac{59}{8}, \frac{5}{2}$ OR for $7.375 - 2.5$)	At least one improper fraction must be correct Both decimals must be correct
		A1	for $4\frac{7}{8}$ oe eg $4\frac{14}{16}$	Any equivalents must be a mixed number

Q16 june 2024

21	(a)	$2\frac{2}{15}$	M1	for a method to subtract using a common denominator with at least one fraction correct (suitable common denominator for original fractions with at least one correct numerator) eg $\frac{57}{15} - \frac{25}{15}$ or $(3)\frac{12}{15} - (1)\frac{10}{15}$	Use of decimals gets no credit unless it leads to a correct fraction ISW incorrect conversion from improper fraction to mixed number or incorrect simplification of improper fraction.
			A1	for $2\frac{2}{15}$ oe eg $\frac{32}{15}$	
	(b)	Mistake identified	C1	for explaining that Kevin did not convert to the correct mixed number Acceptable examples In his answer $\frac{9}{24}$ should have been $\frac{11}{24}$ The 9 should be 11 He has not got the numerator right in his final answer He simplified into the mixed number incorrectly He has not put the remainder as the numerator $1\frac{9}{24}$ would give you $\frac{33}{24}$ rather than $\frac{35}{24}$ $\frac{35}{24} = 1\frac{11}{24}$ Not acceptable examples He should have used a common denominator He has not simplified his answer He should have done keep, flip, change He converted the fraction wrongly The answer should be $1\frac{10}{24}$	Figures may be seen in the question space.

Q17 Nov 2017

14		$\frac{5}{7}$	P1	for $\frac{7}{5} = 1.4$ or $\frac{5}{7} = 0.7..$ or compares $\frac{1}{7}$ to $\frac{1}{5}$ or compare $\frac{5}{7}$ to 1 eg $1 - \frac{5}{7} (= \frac{2}{7})$ or compare $\frac{7}{5}$ to 1 eg $\frac{7}{5} = 1\frac{2}{5}$ or eg $\frac{49}{35}$ or $\frac{14}{35}$ or $\frac{25}{35}$ oe
		supported	P1	for $\frac{7}{5} = 1.4$ and $\frac{5}{7} = 0.7..$ or compares $\frac{5}{7}$ to 1 eg $1 - \frac{5}{7} (= \frac{2}{7})$ and $\frac{7}{5}$ to 1 eg $\frac{7}{5} = 1\frac{2}{5}$ or two correct fractions with common denominator eg $\frac{49}{35}$ and $\frac{25}{35}$
			C1	for $\frac{5}{7}$ with supporting evidence

Q18 Nov 2017

22	(a)	$\frac{8}{20} + \frac{5}{20}$	M1	for suitable common denominator with one fraction out of two correct or $0.4 + 0.25$
			A1	for $\frac{13}{20}$ or 0.65 oe

Q19 Nov 2018

6	Yes (supported)	P1	starts process to find the number of tins or meals needed, eg $2 \times \frac{1}{4} (= \frac{2}{4} = \frac{1}{2})$ or $14 \times \frac{1}{4} (= \frac{14}{4} \text{ oe})$ or $2 \times 14 (= 28)$ or $8 \div 2$ or to find the number of meals from 8 tins, eg $8 \div \frac{1}{4} (= 32)$	Numbers may be expressed in decimal form
		P1	a complete process to find the number of tins needed, eg $14 \times \frac{2}{4} (= 7)$ or $8 \div 2$ and $\frac{14}{4}$ OR to find the numbers of meals $8 \div \frac{1}{4} (= 32)$ and $2 \times 14 (= 28)$ or $8 \div \frac{2}{4} (= 16)$	
		C1	'Yes' from a comparison of correct values, eg 7 (and 8) or 32 and 28 or 16 (and 14) or $\frac{14}{4}$ and 4	

Q20 Nov 2018

11	(a)	$\frac{10}{16}$	B1	cao	
	(b)	$\frac{11}{12}$	M1	for $\frac{10}{12}$ OR for using a suitable common denominator other than 12 with at least one of the two fractions correct, eg $\frac{2}{24} + \frac{20}{24}$	
			A1	for $\frac{11}{12}$ oe	Accept any equivalent fraction

Q21 Nov 2019

4

 $\frac{2}{5}$

B1

cao

Q22 Nov 2019

22	$2\frac{1}{3}$	M1	for either $\frac{7}{4}$ oe or $\frac{4}{3}$ oe	
		M1	for method to find the product, eg $\frac{7 \times 4}{4 \times 3}$ or $\frac{21 \times 16}{12 \times 12}$ oe or for $\frac{28}{12}$ or $\frac{7}{3}$ oe	
		A1	for $2\frac{1}{3}$ or an equivalent mixed number	

Q23 Nov 2020

10	660	P1	for a process to work out the number of large marbles eg $12 \div 4 (=3)$ or the number of small marbles eg $12 - [\text{number of large marbles}]$ or $12 \times (1 - \frac{1}{4}) (=9)$	[number of large marbles] could come from an incorrect method for finding $\frac{1}{4}$ of 12
		P1	(dep) for a process to work out the weight of large marbles eg " 3 " $\times 70 (=210)$ or to work out the weight of small marbles eg " 9 " $\times 50 (=450)$	
		P1	for a complete process eg $(12 \div 4) \times 70 + 12 \times (1 - \frac{1}{4}) \times 50$ oe	
		A1	cao	

Q24 Nov 2020

21	Shown	M1	for conversion to improper fractions eg. $\frac{7}{3}$ or $\frac{15}{4}$	Need not be shown with operators
		M1	(dep) for method to multiply fractions, eg. $\frac{7 \times 15}{3 \times 4} (= \frac{105}{12})$ or $\frac{28 \times 45}{12 \times 12} (= \frac{1260}{144})$ oe	
		C1	for complete working showing each stage as far as $\frac{35}{4}$ or $8\frac{9}{12}$	

Q25 Nov 2021

22	$1\frac{8}{15}$	M2	for a complete method, eg $4 - 2 + \frac{3}{15} - \frac{10}{15}$ condoning error with one numerator or for $\frac{21}{5} - \frac{8}{3} = \frac{63}{15} - \frac{40}{15} (= \frac{23}{15})$ with no more than one error	
		(M1)	for finding two fractions with a correct common denominator, with at least one correct corresponding numerator, eg $\frac{3}{15}, \frac{10}{15}$ or for converting both to improper fractions, eg $\frac{21}{5}, \frac{8}{3}$	At least one improper fraction must be correct
		A1	$1\frac{8}{15}$ oe	Any equivalents must be a mixed number

Q26 Nov 2022

20	(a)	$3\frac{17}{20}$	M1	for finding two fractions with a correct common denominator (multiple of 20), with at least one correct corresponding numerator, eg. $\frac{12}{20}, \frac{5}{20}$ or $\frac{32}{20}, \frac{45}{20}$	May be from $\frac{3}{5}$ and $\frac{1}{4}$ or from $\frac{8}{5}$ and $\frac{9}{4}$
			A1	for $3\frac{17}{20}$ or an equivalent mixed number SC: B1 for 3.85 if M0 scored	
	(b)	shown	M1	for $\frac{8}{3} \times \frac{1}{6}$ oe or $\frac{4}{9} \times \frac{6}{1}$ oe or $\frac{8}{3} \times \frac{9}{4}$ oe	
			A1	for unsimplified fraction which could lead to $\frac{4}{9}$, eg $\frac{8}{18}$ or for $\frac{4}{3} \times \frac{1}{3}$ or $\frac{24}{9} \div 6$ or for unsimplified fraction which could lead to $2\frac{2}{3}$, eg $\frac{24}{9}$ or for unsimplified fraction which could lead to 6, eg $\frac{72}{12}$	

Q27 Nov 2023

5

60

B1

cao

Q28 Nov 2023

17	$3\frac{3}{5}$	M1	for inverting to give $\frac{3}{5} \times 6$ oe OR for two correct fractions with a common denominator eg $\frac{18}{30} \div \frac{5}{30}$	
		M1	for method to calculate eg $\frac{3 \times 6}{5}$ or $\frac{3 \times 30}{5 \times 5}$ or $\frac{18}{5}$ or $\frac{90}{25}$ oe	
		A1	for $3\frac{3}{5}$ or any other equivalent mixed number eg $3\frac{15}{25}$	

Q29 Nov 2024

20	(a)	$2\frac{1}{3}$	M1	for a method to subtract by writing both fractions with a common denominator with at least one correct numerator, eg. $3\frac{3}{6} - 1\frac{1}{6}$ or $\frac{3}{6} - \frac{1}{6} (= \frac{2}{6})$ or $\frac{21}{6} - \frac{7}{6} (= \frac{14}{6})$ or $\frac{42}{12} - \frac{14}{12} (= \frac{28}{12})$	
			A1	for $2\frac{1}{3}$ or an equivalent mixed number	
	(b)	Shown	M1	for conversion to improper fractions, eg. $\frac{21}{4}$ or $\frac{7}{3}$ or $\frac{9}{4}$	
			M1	(dep) for method to divide by a fraction, eg. $\frac{21}{4} \times \frac{3}{7}$ or $\frac{63}{12} \div \frac{28}{12}$	
			C1	for complete work showing each stage as far as $\frac{9}{4}$ or $2\frac{7}{28}$	
					Do not ISW incorrect further work from correct equivalent mixed number
					Must see an intermediate step, eg. $\frac{63}{28}$ must be seen and then cancelled or correct cancelling seen before multiplication