

**Adding and subtracting mixed number fractions**

**Green**

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| 1. $3\frac{2}{3}+2\frac{2}{3}=$2. $ 4\frac{2}{5}+1\frac{3}{4}=$3. $4\frac{1}{7}+2\frac{5}{6}=$4. $ 7\frac{2}{9}+5\frac{9}{10}=$5. $ 7\frac{2}{7}+9\frac{11}{12}=$ | 6. $ 6\frac{2}{3}-3\frac{1}{6}=$7. $ 7\frac{4}{5}-2\frac{2}{15}=$8. $8\frac{3}{7}-5\frac{1}{6}=$9. $ 11\frac{2}{5}-7\frac{1}{3}=$10. $ 8\frac{13}{40}-1\frac{3}{20}=$ |

**Extension**: Andy has $1\frac{2}{5}$ bars of chocolate. Ben has $2\frac{2}{3}$ bars of chocolate. How many bars of chocolate do they have altogether?

**Amber**

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| 1. $7\frac{1}{3}-2\frac{2}{3}=$2. $ 5\frac{2}{5}-1\frac{3}{4}=$3. $9\frac{1}{7}-2\frac{5}{6}=$ | 4. $ 8\frac{2}{3}-2\frac{5}{6}=$5. $ 4\frac{4}{5}-1\frac{4}{15}=$6. $8\frac{3}{7}-4\frac{5}{6}=$ |

**Extension**: Andy eats $1\frac{2}{7}$ pizzas. Ben eats 6 slices of pizza that were cut into quarters. Who ate more pizza? What is the difference between how much they ate?

**Red**

1. Darren and Clare each have a cake the same size. Clare cuts her cake into ninths and Darren cuts his cake into sevenths. Clare eats 5 slices of her cake and 2 of Darren’s cake. Darren eats one slice of his own cake and 1 slice of Clare’s cake.
	1. How much cake did Clare eat?
	2. How much cake did Darren eat?
	3. What is the difference between how much cake they each ate.
2. To make orange squash for a party you mix 3 litres of water with $\frac{3}{8}$ of a litre of concentrate. You then pour 8 cups of orange squash that each contain $\frac{2}{9}$ of a litre of the mixture. How much squash do you have left over?

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**SOLUTIONS: Adding and subtracting mixed number fractions**

**Green**

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| 1. $3\frac{2}{3}+2\frac{2}{3}=6\frac{1}{3}$2. $ 4\frac{2}{5}+1\frac{3}{4}=6\frac{3}{20}$3. $4\frac{1}{7}+2\frac{5}{6}=6\frac{41}{42}$4. $ 7\frac{2}{9}+5\frac{9}{10}=13\frac{11}{90}$5. $ 7\frac{2}{7}+9\frac{11}{12}=17\frac{17}{84}$ | 6. $ 6\frac{2}{3}-3\frac{1}{6}=3\frac{1}{2}$7. $ 7\frac{4}{5}-2\frac{2}{15}=5\frac{2}{3}$8. $8\frac{3}{7}-5\frac{1}{6}=3\frac{11}{42}$9. $ 11\frac{2}{5}-7\frac{1}{3}=4\frac{1}{15}$10. $ 8\frac{13}{40}-1\frac{3}{20}=7\frac{7}{40}$ |

**Extension**: Andy has $1\frac{2}{5}$ bars of chocolate. Ben has $2\frac{2}{3}$ bars of chocolate. How many bars of chocolate do they have altogether? $=4\frac{1}{15}$

**Amber**

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| --- | --- |
| 1. $7\frac{1}{3}-2\frac{2}{3}=4\frac{2}{3}$2. $ 5\frac{2}{5}-1\frac{3}{4}=3\frac{13}{20}$3. $9\frac{1}{7}-2\frac{5}{6}=6\frac{13}{42}$ | 4. $ 8\frac{2}{3}-2\frac{5}{6}=5\frac{5}{6}$5. $ 4\frac{4}{5}-1\frac{4}{15}=3\frac{8}{15}$6. $8\frac{3}{7}-4\frac{5}{6}=3\frac{25}{42}$ |

**Extension**: Andy eats $1\frac{2}{7}$ pizzas. Ben eats 6 slices of pizza that were cut into quarters. Who ate more pizza? What is the difference between how much they ate? Ben ate more. Difference =$ \frac{3}{14}$

**Red**

1. Darren and Clare each have a cake the same size. Clare cuts her cake into ninths and Darren cuts his cake into sevenths. Clare eats 5 slices of her cake and 2 of Darren’s cake. Darren eats one slice of his own cake and 1 slice of Clare’s cake.
	1. How much cake did Clare eat? $\frac{53}{63}$
	2. How much cake did Darren eat? $\frac{16}{63}$
	3. What is the difference between how much cake they each ate. $\frac{37}{63}$
2. To make orange squash for a party you mix 3 litres of water with $\frac{3}{8}$ of a litre of concentrate. You then pour 8 cups of orange squash that each contain $\frac{2}{9}$ of a litre of the mixture. How much squash do you have left over? $1\frac{43}{72}$