Adding and Subtracting Mixed Number Fractions

For each question:

- clearly show your working out;

- where appropriate, write your answer as a mixed number fraction;

- write your answer in its simplest form.

1. $1\frac{1}{5} + 2\frac{1}{4} =$

_____

_____

_____

2. $2\frac{1}{8} + 3\frac{1}{2} =$

_____

_____

_____

3. $3\frac{1}{9} - 2\frac{1}{5} =$

_____

_____

_____

4. $1\frac{1}{12} + 2\frac{1}{3} =$

_____

_____

_____

5. $3\frac{2}{5} - 1\frac{1}{2} =$

_____

_____

_____

6. Explain why $2\frac{1}{4} + 1\frac{1}{2}$ is not $3\frac{2}{6}$.

_____

_____

_____

7. Show how $5\frac{1}{3} - 1\frac{1}{5}$ is $4\frac{2}{15}$.

_____

_____

_____

8. My dog is $2\frac{1}{2}$ years old. My hamster is $1\frac{1}{4}$ years younger. How old is my hamster?

_____

_____

_____

9. Tyler ran $3\frac{2}{5}$ km and Luke ran $2\frac{1}{4}$ km.

a) What is their combined distance?

_____

_____

_____

b) What is the difference between Tyler's distance and Luke's distance?

_____

_____

_____

10. For the school summer fayre, Rosie and Katie need to make $21\frac{1}{2}$ litres of orange squash.

a) If they have $4\frac{3}{4}$ litres of orange cordial, how much water do they need?

_____

_____

_____

b) If Rosie and Katie sell their orange squash in 250ml glasses for 60p each, how many glasses could they sell and how much money could they make?

_____

_____

_____

REGENT STUDIES
Focused education on life's walk!
www.regentstudies.com

Adding and Subtracting Mixed Number Fractions **Answers**

1. $3\frac{9}{20}$

2. $5\frac{5}{8}$

3. $\frac{41}{45}$

4. $3\frac{5}{12}$

5. $1\frac{9}{10}$

6. You could turn the mixed number fractions into improper fractions before adding. The fractions can then only be added if they have the same denominator.

   $2\frac{1}{4} + 1\frac{1}{2} = \frac{9}{4} + \frac{3}{2}$

   $\frac{9}{4} + \frac{3}{2} = \frac{9}{4} + \frac{6}{4}$

   $= \frac{15}{4}$

   $= 3\frac{3}{4}$

7. $5\frac{1}{3} - 1\frac{1}{5} = \frac{16}{3} - \frac{6}{5}$

   $\frac{16}{3} - \frac{6}{5} = \frac{80}{15} - \frac{18}{15}$

   $= \frac{62}{15}$

   $= 4\frac{2}{15}$

8. $1\frac{1}{4}$ years old

9. a) $5\frac{13}{20}$ km

   b) $1\frac{3}{20}$ km

10. a) $16\frac{3}{4}$ litres of water are needed.

    b) 86 glasses. They could make £51.60.