Answers

M9

1.8 Operations with Mixed Numbers

- Convert all mixed numbers into improper fractions.
- Reduce individual fractions if possible.
- Follow BEDMAS when carrying out the given operations.
- Reduce the final answer and convert it to a mixed number if possible.

- **Remember** to change division to multiplication and reciprocate the fraction that is immediately after the division symbol.
- **Remember** to simplify diagonally **only** if fractions have a **multiplication** symbol between them.

A negative mixed number turns into a negative improper fraction.
The rules of conversion of mixed numbers to improper fractions remain the same.
There is NO subtraction in the process.

$-5\frac{2}{7} = -\frac{37}{7}$

$-4\frac{3}{7} = -\frac{31}{7}$

Solve

1. $4\frac{1}{3} \times 12 =$

$= \frac{13}{3_1} \times \frac{\cancel{12}^{4}}{1}$

$= \frac{52}{1} = \boxed{52}$

2. $1\frac{3}{4} \div 7\frac{3}{5} =$

$= \frac{7}{4} \div \frac{38}{5}$

$= \frac{7}{4} \times \frac{5}{38} = \boxed{\frac{35}{152}}$

3. $\frac{3}{4} + 6\frac{1}{8} =$

$= \frac{3 \times 2}{4 \times 2} + \frac{49}{8}$

$= \frac{6}{8} + \frac{49}{8}$

$= \frac{55}{8}$

$= \boxed{6\frac{7}{8}}$

4. $-2\frac{1}{4} \div 3\frac{4}{9} =$

$= -\frac{9}{4} \div \frac{31}{9}$

$= -\frac{9}{4} \times \frac{9}{31}$

$= \boxed{-\frac{81}{124}}$