Adding mixed numbers

Miss Parnham

Adding mixed numbers

1. Add the mixed numbers.

Give answers in their simplest form.

a) $\frac{1}{3} + 1\frac{2}{9}$

b) $2\frac{1}{8} + \frac{3}{4}$

c) $3\frac{2}{9} + 2\frac{2}{3}$

d) $1\frac{5}{12} + 4\frac{3}{8}$

e) $2\frac{5}{12} + 4\frac{1}{3}$

f) $4\frac{2}{15} + 5\frac{2}{3}$

2. Compare these two methods.

$$2\frac{5}{6} + 1\frac{4}{9}$$
$$= \frac{17}{6} + \frac{13}{9}$$
$$= \frac{51}{18} + \frac{26}{18}$$
$$= \frac{77}{18} = 4\frac{5}{18}$$

$$2\frac{5}{6} + 1\frac{4}{9}$$
$$= 2 + 1 + \frac{5}{6} + \frac{4}{9}$$
$$= 3 + \frac{15}{18} + \frac{8}{18}$$
$$= 3 + \frac{23}{18}$$
$$= 3 + 1\frac{5}{18} = 4\frac{5}{18}$$

Which do you prefer? Why?

Adding mixed numbers

3. Add the mixed numbers.

Give answers in their simplest form.

a) $\frac{7}{8} + 2\frac{3}{4}$

b) $1\frac{1}{2} + (-\frac{3}{4})$

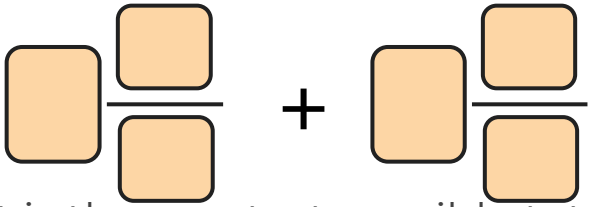
c) $3\frac{7}{12} + 1\frac{5}{6}$

d) $-3\frac{13}{15} + 2\frac{4}{5}$

e) $5\frac{9}{11} + 3\frac{1}{4}$

f) $2\frac{3}{10} + (-4\frac{5}{8})$

4. Using the digits 1 , 2, 3, 4, 5, and 6



What is the greatest possible total?

What is the lowest possible total?

Is there more than one way to get each answer?

Answers

Adding mixed numbers

1. Add the mixed numbers.

Give answers in their simplest form.

a) $\frac{1}{3} + 1\frac{2}{9} = 1\frac{5}{9}$

b) $2\frac{1}{8} + \frac{3}{4} = 2\frac{7}{8}$

c) $3\frac{2}{9} + 2\frac{2}{3} = 5\frac{8}{9}$

d) $1\frac{5}{12} + 4\frac{3}{8} = 5\frac{19}{24}$

e) $2\frac{5}{12} + 4\frac{1}{3} = 6\frac{3}{4}$

f) $4\frac{2}{15} + 5\frac{2}{3} = 9\frac{4}{5}$

2. Compare these two methods.

Fewer steps

$2\frac{5}{6} + 1\frac{4}{9}$

$= \frac{17}{6} + \frac{13}{9}$

$= \frac{51}{18} + \frac{26}{18}$

$= \frac{77}{18} = 4\frac{5}{18}$

Smaller numbers in calculations

$2\frac{5}{6} + 1\frac{4}{9}$

$= 2 + 1 + \frac{5}{6} + \frac{4}{9}$

$= 3 + \frac{15}{18} + \frac{8}{18}$

$= 3 + \frac{23}{18}$

$= 3 + 1\frac{5}{18} = 4\frac{5}{18}$

Which do you prefer? Why?

Adding mixed numbers

3. Add the mixed numbers.

Give answers in their simplest form.

a) $\frac{7}{8} + 2\frac{3}{4} = 3\frac{5}{8}$

b) $1\frac{1}{2} + (-\frac{3}{4}) = \frac{3}{4}$

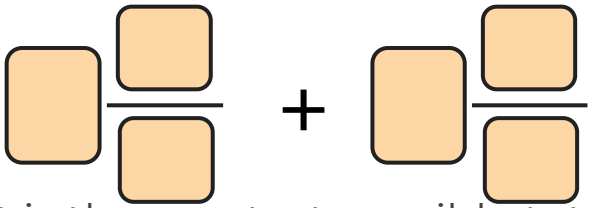
c) $3\frac{7}{12} + 1\frac{5}{6} = 5\frac{5}{12}$

d) $-3\frac{13}{15} + 2\frac{4}{5} = -1\frac{1}{15}$

e) $5\frac{9}{11} + 3\frac{1}{4} = 9\frac{3}{44}$

f) $2\frac{3}{10} + (-4\frac{5}{8}) = -2\frac{13}{40}$

4. Using the digits 1 , 2, 3, 4, 5, and 6



What is the greatest possible total?

$5\frac{1}{2} + 6\frac{3}{4} = 12\frac{1}{4}$

What is the lowest possible total?

$1\frac{3}{5} + 2\frac{4}{6} = 4\frac{4}{15}$

Is there more than one way to get each answer?

Yes, use associative law.

e.g. $5\frac{1}{2} + 6\frac{3}{4} = 5 + 6 + \frac{1}{2} + \frac{3}{4} = 6\frac{1}{2} + 5\frac{3}{4}$