

Name: Class:

Add and subtract mixed numbers with like denominators



Add and subtract the following. Simplify your answer.

a. $5\frac{1}{2} + 6\frac{1}{2}$

d. $7\frac{5}{7} + 11\frac{1}{7}$

b. $4\frac{10}{17} - 2\frac{6}{17}$

e. $3\frac{5}{6} - 1\frac{3}{6}$

c. $9\frac{1}{2} + 5\frac{1}{2}$

f. $12\frac{9}{25} - 6\frac{4}{25}$



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Add and subtract mixed numbers with like denominators



Add and subtract the following. Simplify your answer.

a. $5\frac{1}{2} + 6\frac{1}{2}$

Since the denominators are the same,
let's add whole numbers to whole numbers
and then fractions to fractions.

$$5\frac{1}{2} + 6\frac{1}{2} = (5+6)\frac{1+1}{2} = 11\frac{2}{2}$$

$$\text{but } \frac{2}{2} = 1$$

$$\text{So, } 11\frac{2}{2} = 11 + 1 = 12$$

$$\text{Therefore, } 2\frac{1}{2} + 6\frac{1}{2} = 12$$

b. $4\frac{10}{17} - 2\frac{6}{17}$

Since the denominators are the same,
let's subtract whole numbers from whole
numbers and then fractions from fractions.

$$4\frac{10}{17} - 2\frac{6}{17} = (4-2)\frac{10-6}{17} = 2\frac{4}{17}$$

$$\text{Therefore, } 4\frac{10}{17} - 2\frac{6}{17} = 2\frac{4}{17}$$

c. $9\frac{1}{2} + 5\frac{1}{2}$

Since the denominators are the same,
let's add whole numbers to whole numbers
and then fractions to fractions.

$$9\frac{1}{2} + 5\frac{1}{2} = (9+5)\frac{1+1}{2} = 14\frac{2}{2}$$

$$\text{but } \frac{2}{2} = 1$$

$$\text{So, } 14\frac{2}{2} = 14 + 1 = 15$$

$$\text{Therefore, } 9\frac{1}{2} + 5\frac{1}{2} = 15$$

d. $7\frac{5}{7} + 11\frac{1}{7}$

Since the denominators are the same,
let's add whole numbers to whole numbers
and then fractions to fractions.

$$7\frac{5}{7} + 11\frac{1}{7} = (7+11)\frac{5+1}{7} = 18\frac{6}{7}$$

$$\text{Therefore, } 7\frac{5}{7} + 11\frac{1}{7} = 18\frac{6}{7}$$

e. $3\frac{5}{6} - 1\frac{3}{6}$

Since the denominators are the same,
let's subtract whole numbers from whole
numbers and then fractions from fractions.

$$3\frac{5}{6} - 1\frac{3}{6} = (3-1)\frac{5-3}{6} = 2\frac{2}{6}$$

$$\text{but } \frac{2}{6} = \frac{1}{3}$$

$$\text{Therefore, } 3\frac{5}{6} - 1\frac{3}{6} = 2\frac{1}{3}$$

f. $12\frac{9}{25} - 6\frac{4}{25}$

Since the denominators are the same,
let's subtract whole numbers from whole
numbers and then fractions from fractions.

$$12\frac{9}{25} - 6\frac{4}{25} = (12-6)\frac{9-4}{25} = 6\frac{5}{25} = 6\frac{1}{5}$$

$$\text{Therefore, } 12\frac{9}{25} - 6\frac{4}{25} = 6\frac{1}{5}$$

