ADDITION/SUBTRACTION OF FRACTIONS

TARGET To add and subtract fractions and mixed numbers with different denominators.

Examples $\frac{3}{5} + \frac{7}{10} = \frac{6+7}{10} = \frac{13}{10} = 1\frac{3}{10}$ $\quad \frac{11}{12} - \frac{3}{4} = \frac{11-9}{12} = \frac{2}{12}\frac{1}{6}$

$2\frac{3}{7} + 1\frac{5}{7} = 3\frac{8}{7} = 4\frac{1}{7}$ $\quad 5\frac{3}{4} - 1\frac{1}{8} = 4\frac{6-1}{8} = 4\frac{5}{8}$

If the numerators cannot be subtracted change one whole one into a fraction.

$4\frac{3}{10} - 2\frac{1}{2} = 2\frac{3-5}{10} = 1\frac{13-5}{10} = 1\frac{8}{10}\frac{4}{5}$

A

Copy and complete.

1. $\frac{4}{9} + \frac{1}{9} = \frac{\square + \square}{9} = \frac{\square}{9}$
2. $\frac{23}{100} + \frac{39}{100} = \frac{\square + \square}{100} = \frac{\square}{100}$
3. $\frac{3}{4} - \frac{1}{4} = \frac{\square - \square}{4} = \frac{\square}{4}$
4. $\frac{5}{8} - \frac{3}{8} = \frac{\square - \square}{8} = \frac{\square}{8}$
5. $\frac{3}{5} + \frac{4}{5} = \frac{\square}{5} = 1\frac{\square}{5}$
6. $\frac{7}{12} + \frac{7}{12} = \frac{\square}{12} = 1\frac{\square}{12}$
7. $1\frac{1}{6} - \frac{5}{6} = \frac{\square}{6} - \frac{5}{6} = \frac{\square}{6}$
8. $1\frac{3}{10} - \frac{7}{10} = \frac{\square}{10} - \frac{7}{10} = \frac{\square}{10}$

Work out

9. $\frac{1}{5} + \frac{2}{5}$
10. $\frac{3}{8} + \frac{3}{8}$
11. $\frac{99}{100} - \frac{12}{100}$
12. $\frac{7}{9} - \frac{5}{9}$
13. $\frac{6}{7} + \frac{4}{7}$
14. $\frac{3}{4} + \frac{3}{4}$
15. $1\frac{1}{3} - \frac{2}{3}$
16. $1\frac{4}{11} - \frac{9}{11}$

B

Continue to complete. Write answers in lowest terms or as mixed numbers where necessary.

1. $\frac{1}{2} + \frac{3}{8} = \frac{\square}{8} + \frac{3}{8} = \frac{\square}{8}$
2. $\frac{11}{12} - \frac{5}{6} = \frac{11}{12} - \frac{\square}{12} = \frac{\square}{12}$
3. $\frac{5}{9} + \frac{1}{3} = \frac{5 + \square}{9} = \frac{\square}{9}$
4. $\frac{4}{5} - \frac{7}{10} = \frac{\square - 7}{10} = \frac{\square}{10}$
5. $3\frac{2}{7} + 1\frac{3}{7} = 4\frac{\square + \square}{7} = \ldots$
6. $1\frac{7}{11} + 2\frac{10}{11} = 3\frac{\square + \square}{11} = \ldots$
7. $4\frac{61}{100} - 1\frac{37}{100} = 3\frac{\square + \square}{100} = \ldots$
8. $7\frac{4}{9} - 3\frac{5}{9} = 4\frac{\square + \square}{9} = \ldots$

Work out

9. $\frac{4}{10} + \frac{1}{2}$
10. $\frac{3}{4} + \frac{5}{12}$
11. $\frac{7}{8} - \frac{1}{4}$
12. $1\frac{1}{3} - \frac{5}{6}$
13. $1\frac{43}{100} + 5\frac{79}{100}$
14. $3\frac{2}{9} + 1\frac{7}{9}$
15. $4\frac{4}{5} - 2\frac{3}{5}$
16. $6\frac{7}{12} - 3\frac{11}{12}$

C

Work out

1. $\frac{1}{4} + \frac{1}{3}$
2. $\frac{2}{7} + \frac{1}{2}$
3. $\frac{2}{3} + \frac{3}{5}$
4. $\frac{9}{10} + \frac{2}{3}$
5. $\frac{7}{12} - \frac{1}{5}$
6. $\frac{9}{10} - \frac{3}{4}$
7. $1\frac{1}{6} - \frac{5}{8}$
8. $1\frac{1}{2} - \frac{4}{5}$
9. $2\frac{1}{3} + 1\frac{5}{12}$
10. $3\frac{57}{100} + 3\frac{3}{4}$
11. $5\frac{2}{5} + 2\frac{3}{10}$
12. $1\frac{3}{4} + 1\frac{7}{8}$
13. $3\frac{1}{2} - 1\frac{21}{100}$
14. $4\frac{3}{8} - 3\frac{5}{16}$
15. $2\frac{1}{2} - 1\frac{2}{3}$
16. $5\frac{125}{1000} - 2\frac{4}{5}$

ADDITION/SUBTRACTION OF MIXED NUMBERS

TARGET To add and subtract mixed numbers.

Examples $3\frac{2}{3} + 1\frac{4}{5} = 4\frac{10+12}{15} = 4\frac{22}{15} = 5\frac{7}{15}$

$6\frac{3}{4} - 2\frac{7}{10} = 4\frac{15-14}{20} = 4\frac{1}{20}$

If the numerators cannot be subtracted convert one whole one into a fraction.

$5\frac{3}{8} - 3\frac{5}{6} = 2\frac{9-20}{24} = 1\frac{33-20}{24} = 1\frac{13}{24}$

A

Copy and complete.

1. $\frac{1}{2} + \frac{1}{6} = \frac{\square}{6} + \frac{1}{6} = \frac{\square}{6}$
2. $\frac{2}{5} + \frac{3}{10} = \frac{\square}{10} + \frac{3}{10} = \frac{\square}{10}$
3. $\frac{3}{4} - \frac{5}{12} = \frac{\square}{12} - \frac{5}{12} = \frac{\square}{12}$
4. $\frac{1}{3} - \frac{1}{6} = \frac{\square}{6} - \frac{1}{6} = \frac{\square}{6}$

Work out

5. $\frac{1}{6} + \frac{5}{12}$
6. $\frac{2}{10} + \frac{1}{2}$
7. $\frac{1}{12} + \frac{2}{3}$
8. $\frac{23}{100} + \frac{4}{10}$
9. $\frac{3}{12} + \frac{2}{6}$
10. $\frac{1}{2} + \frac{1}{8}$
11. $\frac{1}{3} + \frac{4}{9}$
12. $\frac{5}{8} + \frac{1}{4}$
13. $\frac{9}{10} - \frac{2}{5}$
14. $\frac{1}{2} - \frac{1}{12}$
15. $\frac{7}{12} - \frac{1}{4}$
16. $\frac{5}{6} - \frac{1}{3}$
17. $\frac{11}{12} - \frac{5}{6}$
18. $\frac{3}{4} - \frac{1}{8}$
19. $\frac{8}{10} - \frac{1}{2}$
20. $\frac{7}{9} - \frac{2}{3}$

B

Copy and complete.

1. $4\frac{1}{3} + 2\frac{5}{12} = 6\frac{\square + 5}{12} = 6\frac{\square}{12}$
2. $1\frac{1}{4} + 2\frac{3}{5} = 3\frac{\square + \square}{20} = 3\frac{\square}{20}$
3. $3\frac{1}{2} - 1\frac{3}{8} = 2\frac{\square - 3}{8} = 2\frac{\square}{8}$
4. $2\frac{3}{5} - 1\frac{1}{3} = 1\frac{\square - \square}{15} = 1\frac{\square}{15}$

Work out

5. $5\frac{7}{10} + 1\frac{19}{100}$
6. $2\frac{1}{12} + 1\frac{5}{6}$
7. $1\frac{1}{2} + 4\frac{3}{10}$
8. $3\frac{2}{3} + 2\frac{1}{9}$
9. $4\frac{2}{5} + 1\frac{5}{6}$
10. $1\frac{3}{4} + 3\frac{2}{3}$
11. $2\frac{5}{8} + 4\frac{9}{10}$
12. $5\frac{4}{7} + 2\frac{1}{2}$
13. $3\frac{3}{4} - 2\frac{1}{12}$
14. $2\frac{2}{3} - 1\frac{1}{6}$
15. $4\frac{1}{2} - 2\frac{5}{12}$
16. $7\frac{57}{100} - 4\frac{2}{10}$
17. $3\frac{2}{5} - 1\frac{1}{2}$
18. $5\frac{5}{9} - 2\frac{1}{4}$
19. $6\frac{2}{3} - 1\frac{9}{10}$
20. $8\frac{7}{8} - 3\frac{3}{5}$

C

Work out

1. $3\frac{5}{7} + 3\frac{1}{2}$
2. $5\frac{3}{10} + 4\frac{5}{6}$
3. $2\frac{4}{5} + 3\frac{5}{8}$
4. $6\frac{5}{9} + 2\frac{3}{4}$
5. $4\frac{2}{3} + 7\frac{6}{11}$
6. $9\frac{3}{4} + 5\frac{2}{7}$
7. $1\frac{7}{8} + 6\frac{1}{6}$
8. $7\frac{11}{12} + 2\frac{2}{5}$
9. $4\frac{1}{6} + 1\frac{3}{4}$
10. $5\frac{3}{10} - 3\frac{7}{12}$
11. $2\frac{3}{5} - 1\frac{2}{3}$
12. $8\frac{2}{7} - 4\frac{4}{5}$
13. $9\frac{1}{2} - 2\frac{8}{9}$
14. $6\frac{1}{4} - 3\frac{9}{10}$
15. $3\frac{2}{3} - 1\frac{6}{7}$
16. $7\frac{5}{12} - 2\frac{5}{8}$