

## Multiplying Mixed Numbers

Date \_\_\_\_\_ Period \_\_\_\_\_

**Multiply.**

1)  $1\frac{3}{13} * 1\frac{10}{20}$

2)  $2\frac{8}{9} * 1\frac{1}{4}$

3)  $1\frac{14}{16} * 4\frac{3}{4}$

4)  $1\frac{5}{18} * 2\frac{2}{4}$

5)  $1\frac{8}{10} * 2\frac{8}{10}$

6)  $1\frac{11}{12} * 2\frac{1}{5}$

7)  $1\frac{5}{12} * 1\frac{3}{5}$

8)  $1\frac{7}{21} * 1\frac{5}{18}$

9)  $1\frac{4}{7} * 1\frac{1}{12}$

## Multiplying Mixed Numbers

Date \_\_\_\_\_ Period \_\_\_\_\_

**Multiply.**

1)  $1\frac{3}{13} * 1\frac{10}{20}$

Answer:  $1\frac{11}{13}$

2)  $2\frac{8}{9} * 1\frac{1}{4}$

Answer:  $3\frac{11}{18}$

3)  $1\frac{14}{16} * 4\frac{3}{4}$

Answer:  $8\frac{29}{32}$

4)  $1\frac{5}{18} * 2\frac{2}{4}$

Answer:  $3\frac{7}{36}$

5)  $1\frac{8}{10} * 2\frac{8}{10}$

Answer:  $5\frac{1}{25}$

6)  $1\frac{11}{12} * 2\frac{1}{5}$

Answer:  $4\frac{13}{60}$

7)  $1\frac{5}{12} * 1\frac{3}{5}$

Answer:  $2\frac{4}{15}$

8)  $1\frac{7}{21} * 1\frac{5}{18}$

Answer:  $1\frac{19}{27}$

9)  $1\frac{4}{7} * 1\frac{1}{12}$

Answer:  $1\frac{59}{84}$

**Solution Steps**

$$1) 1\frac{3}{13} * 1\frac{10}{20}$$

Convert the mixed numbers to improper fractions

$$1\frac{3}{13} = \frac{1 * 13 + 3}{13} = \frac{16}{13}$$

$$1\frac{10}{20} = \frac{1 * 20 + 10}{20} = \frac{30}{20}$$

$$\frac{16}{13} * \frac{30}{20}$$

$$\frac{13 * 20}{(16 * 30)}$$

$$\frac{(13 * 20)}{(16^4 * 30^6)}$$

$$\frac{(13 * 5^1)}{11}$$

$$1\frac{11}{13}$$

$$4) 1\frac{5}{18} * 2\frac{2}{4}$$

Convert the mixed numbers to improper fractions

$$1\frac{5}{18} = \frac{1 * 18 + 5}{18} = \frac{23}{18}$$

$$2\frac{2}{4} = \frac{2 * 4 + 2}{4} = \frac{10}{4}$$

$$\frac{23}{18} * \frac{10}{4}$$

$$\frac{18 * 4}{(23 * 10)}$$

$$\frac{(18 * 4)}{(23 * 10^5)}$$

$$\frac{(18^9 * 4^2)}{7}$$

$$6\frac{7}{18}$$

$$2) 2\frac{8}{9} * 1\frac{1}{4}$$

Convert the mixed numbers to improper fractions

$$2\frac{8}{9} = \frac{2 * 9 + 8}{9} = \frac{26}{9}$$

$$1\frac{1}{4} = \frac{1 * 4 + 1}{4} = \frac{5}{4}$$

$$\frac{26}{9} * \frac{5}{4}$$

$$\frac{9 * 4}{(26 * 5)}$$

$$\frac{(9 * 4)}{(26^1 * 3 * 5)}$$

$$\frac{(9 * 4^2)}{11}$$

$$3\frac{11}{18}$$

$$5) 1\frac{8}{10} * 2\frac{8}{10}$$

Convert the mixed numbers to improper fractions

$$1\frac{8}{10} = \frac{1 * 10 + 8}{10} = \frac{18}{10}$$

$$2\frac{8}{10} = \frac{2 * 10 + 8}{10} = \frac{28}{10}$$

$$\frac{18}{10} * \frac{28}{10}$$

$$\frac{10 * 10}{(18 * 28)}$$

$$\frac{(10 * 10)}{(18^9 * 28)}$$

$$\frac{(10^5 * 10^5)}{2}$$

$$10\frac{2}{25}$$

$$3) 1\frac{14}{16} * 4\frac{3}{4}$$

Convert the mixed numbers to improper fractions

$$1\frac{14}{16} = \frac{1 * 16 + 14}{16} = \frac{30}{16}$$

$$4\frac{3}{4} = \frac{4 * 4 + 3}{4} = \frac{19}{4}$$

$$\frac{30}{16} * \frac{19}{4}$$

$$\frac{16 * 4}{(30 * 19)}$$

$$\frac{(16 * 4)}{(30^1 * 5 * 19)}$$

$$\frac{(16^8 * 4^2)}{13}$$

$$17\frac{13}{16}$$

$$6) 1\frac{11}{12} * 2\frac{1}{5}$$

Convert the mixed numbers to improper fractions

$$1\frac{11}{12} = \frac{1 * 12 + 11}{12} = \frac{23}{12}$$

$$2\frac{1}{5} = \frac{2 * 5 + 1}{5} = \frac{11}{5}$$

$$\frac{23}{12} * \frac{11}{5}$$

$$\frac{12 * 5}{(23 * 11)}$$

$$\frac{(12 * 5)}{13}$$

$$4\frac{13}{60}$$

$$7) 1\frac{5}{12} * 1\frac{3}{5}$$

Convert the mixed numbers to improper fractions

$$1\frac{5}{12} = \frac{1 * 12 + 5}{12} = \frac{17}{12}$$

$$1\frac{3}{5} = \frac{1 * 5 + 3}{5} = \frac{8}{5}$$

$$\frac{12 * 5}{(17 * 8)}$$

$$\frac{(12 * 5)}{(17 * 8^2)}$$

$$\frac{(12^3 * 5)}{4}$$

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

$$2\frac{15}{15}$$

$$8) 1\frac{7}{21} * 1\frac{5}{18}$$

Convert the mixed numbers to improper fractions

$$1\frac{7}{21} = \frac{1 * 21 + 7}{21} = \frac{28}{21}$$

$$1\frac{5}{18} = \frac{1 * 18 + 5}{18} = \frac{23}{18}$$

$$\frac{21 * 18}{(28 * 23)}$$

$$\frac{(21 * 18)}{(28^1 4 * 23)}$$

$$\frac{(21^3 * 18^9)}{25}$$

$$11\frac{27}{25}$$

$$11\frac{27}{27}$$

$$9) 1\frac{4}{7} * 1\frac{1}{12}$$

Convert the mixed numbers to improper fractions

$$1\frac{4}{7} = \frac{1 * 7 + 4}{7} = \frac{11}{7}$$

$$1\frac{1}{12} = \frac{1 * 12 + 1}{12} = \frac{13}{12}$$

$$\frac{7 * 12}{(11 * 13)}$$

$$\frac{(7 * 12)}{59}$$

$$1\frac{59}{84}$$

$$1\frac{59}{84}$$