

Multiplying Mixed Numbers

Date _____ Period _____

Multiply.

1) $1\frac{6}{21} * 1\frac{2}{14}$

2) $4\frac{2}{4} * 2\frac{1}{14}$

3) $1\frac{8}{16} * 1\frac{3}{4}$

4) $1\frac{1}{12} * 1\frac{3}{16}$

5) $2\frac{1}{4} * 1\frac{4}{10}$

6) $2\frac{6}{8} * 2\frac{1}{4}$

7) $1\frac{13}{16} * 1\frac{2}{5}$

8) $1\frac{2}{20} * 1\frac{7}{23}$

9) $3\frac{4}{5} * 1\frac{7}{16}$

Multiplying Mixed Numbers

Date _____ Period _____

Multiply.

1) $1\frac{6}{21} * 1\frac{2}{14}$

Answer: $1\frac{23}{49}$

2) $4\frac{2}{4} * 2\frac{1}{14}$

Answer: $9\frac{9}{28}$

3) $1\frac{8}{16} * 1\frac{3}{4}$

Answer: $2\frac{5}{8}$

4) $1\frac{1}{12} * 1\frac{3}{16}$

Answer: $1\frac{55}{192}$

5) $2\frac{1}{4} * 1\frac{4}{10}$

Answer: $3\frac{3}{20}$

6) $2\frac{6}{8} * 2\frac{1}{4}$

Answer: $6\frac{3}{16}$

7) $1\frac{13}{16} * 1\frac{2}{5}$

Answer: $2\frac{43}{80}$

8) $1\frac{2}{20} * 1\frac{7}{23}$

Answer: $1\frac{10}{23}$

9) $3\frac{4}{5} * 1\frac{7}{16}$

Answer: $5\frac{37}{80}$

Solution Steps

$$1) 1\frac{6}{21} * 1\frac{2}{14}$$

Convert the mixed numbers to improper fractions

$$1\frac{6}{21} = \frac{1 * 21 + 6}{21} = \frac{27}{21}$$

$$1\frac{2}{14} = \frac{1 * 14 + 2}{14} = \frac{16}{14}$$

$$\frac{27}{21} * \frac{16}{14}$$

$$\frac{(27 * 16)}{(21 * 14)}$$

$$\frac{(27^9 * 16^8)}{(21^7 * 14^7)}$$

$$\frac{23}{23}$$

$$1\frac{1}{49}$$

$$4) 1\frac{1}{12} * 1\frac{3}{16}$$

Convert the mixed numbers to improper fractions

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

$$1\frac{3}{16} = \frac{1 * 16 + 3}{16} = \frac{19}{16}$$

$$\frac{13}{12} * \frac{19}{16}$$

$$\frac{(13 * 19)}{(12 * 16)}$$

$$\frac{55}{192}$$

$$1\frac{1}{192}$$

$$2) 4\frac{2}{4} * 2\frac{1}{14}$$

Convert the mixed numbers to improper fractions

$$4\frac{2}{4} = \frac{4 * 4 + 2}{4} = \frac{18}{4}$$

$$2\frac{1}{14} = \frac{2 * 14 + 1}{14} = \frac{29}{14}$$

$$\frac{18}{4} * \frac{29}{14}$$

$$\frac{(18 * 29)}{(4 * 14)}$$

$$\frac{(18^9 * 29)}{(4^2 * 14^7)}$$

$$\frac{9}{9}$$

$$18\frac{1}{14}$$

$$5) 2\frac{1}{4} * 1\frac{4}{10}$$

Convert the mixed numbers to improper fractions

$$2\frac{1}{4} = \frac{2 * 4 + 1}{4} = \frac{9}{4}$$

$$1\frac{4}{10} = \frac{1 * 10 + 4}{10} = \frac{14}{10}$$

$$\frac{9}{4} * \frac{14}{10}$$

$$\frac{(9 * 14)}{(4 * 10)}$$

$$\frac{(9 * 14^7)}{(4^2 * 10^5)}$$

$$\frac{3}{3}$$

$$6\frac{1}{10}$$

$$3) 1\frac{8}{16} * 1\frac{3}{4}$$

Convert the mixed numbers to improper fractions

$$1\frac{8}{16} = \frac{1 * 16 + 8}{16} = \frac{24}{16}$$

$$1\frac{3}{4} = \frac{1 * 4 + 3}{4} = \frac{7}{4}$$

$$\frac{24}{16} * \frac{7}{4}$$

$$\frac{(24 * 7)}{(16 * 4)}$$

$$\frac{(24^6 * 7)}{(16^2 * 4^1)}$$

$$21$$

$$21$$

$$6) 2\frac{6}{8} * 2\frac{1}{4}$$

Convert the mixed numbers to improper fractions

$$2\frac{6}{8} = \frac{2 * 8 + 6}{8} = \frac{22}{8}$$

$$2\frac{1}{4} = \frac{2 * 4 + 1}{4} = \frac{9}{4}$$

$$\frac{22}{8} * \frac{9}{4}$$

$$\frac{(22 * 9)}{(8 * 4)}$$

$$\frac{(22^1 * 9)}{(8^4 * 4^2)}$$

$$\frac{3}{3}$$

$$12\frac{1}{8}$$

$$7) 1\frac{13}{16} * 1\frac{2}{5}$$

Convert the mixed numbers to improper fractions

$$1\frac{13}{16} = \frac{1 * 16 + 13}{16} = \frac{29}{16}$$

$$1\frac{2}{5} = \frac{1 * 5 + 2}{5} = \frac{7}{5}$$

$$\frac{16 * 5}{(29 * 7)}$$

$$\frac{(16 * 5)}{43}$$

$$2\frac{43}{80}$$

$$8) 1\frac{2}{20} * 1\frac{7}{23}$$

Convert the mixed numbers to improper fractions

$$1\frac{2}{20} = \frac{1 * 20 + 2}{20} = \frac{22}{20}$$

$$1\frac{7}{23} = \frac{1 * 23 + 7}{23} = \frac{30}{23}$$

$$\frac{20 * 23}{(22 * 30)}$$

$$\frac{(20 * 23)}{(22^1 * 30^3)}$$

$$\frac{(10^1 * 23)}{10}$$

$$1\frac{23}{23}$$

$$9) 3\frac{4}{5} * 1\frac{7}{16}$$

Convert the mixed numbers to improper fractions

$$3\frac{4}{5} = \frac{3 * 5 + 4}{5} = \frac{19}{5}$$

$$1\frac{7}{16} = \frac{1 * 16 + 7}{16} = \frac{23}{16}$$

$$\frac{5 * 16}{(19 * 23)}$$

$$\frac{(5 * 16)}{37}$$

$$5\frac{37}{80}$$