

Dividing Mixed Numbers

Date _____ Period _____

Divide.

1) $1\frac{6}{7} \div 1\frac{8}{11}$

2) $1\frac{6}{17} \div 1\frac{3}{20}$

3) $1\frac{4}{19} \div 2\frac{1}{4}$

4) $1\frac{4}{11} \div 1\frac{1}{27}$

5) $2\frac{5}{6} \div 1\frac{4}{5}$

6) $1\frac{3}{26} \div 1\frac{6}{23}$

7) $1\frac{3}{22} \div 1\frac{1}{6}$

8) $2\frac{5}{7} \div 1\frac{1}{4}$

9) $3\frac{4}{6} \div 1\frac{1}{14}$

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1) $1\frac{6}{7} \div 1\frac{8}{11}$

Answer: $1\frac{10}{133}$

2) $1\frac{6}{17} \div 1\frac{3}{20}$

Answer: $1\frac{3}{17}$

3) $1\frac{4}{19} \div 2\frac{1}{4}$

Answer: $\frac{92}{171}$

4) $1\frac{4}{11} \div 1\frac{1}{27}$

Answer: $1\frac{97}{308}$

5) $2\frac{5}{6} \div 1\frac{4}{5}$

Answer: $1\frac{31}{54}$

6) $1\frac{3}{26} \div 1\frac{6}{23}$

Answer: $\frac{23}{26}$

7) $1\frac{3}{22} \div 1\frac{1}{6}$

Answer: $\frac{75}{77}$

8) $2\frac{5}{7} \div 1\frac{1}{4}$

Answer: $2\frac{6}{35}$

9) $3\frac{4}{6} \div 1\frac{1}{14}$

Answer: $3\frac{19}{45}$

Solution Steps

1) $1\frac{6}{7} \div 1\frac{8}{11}$

Convert the mixed numbers to improper fractions

$$1\frac{6}{7} = \frac{6 + 1 * 7}{7} = \frac{13}{7}$$

$$1\frac{8}{11} = \frac{8 + 1 * 11}{11} = \frac{19}{11}$$

To divide $\frac{13}{7}$ by $\frac{19}{11}$, multiply

$$\frac{13}{7} \text{ by } \frac{11}{19}$$

$$\frac{13}{7} * \frac{11}{19}$$

$$\frac{(13 * 11)}{(7 * 19)}$$

$$1\frac{10}{133}$$

2) $1\frac{6}{17} \div 1\frac{3}{20}$

Convert the mixed numbers to improper fractions

$$1\frac{6}{17} = \frac{6 + 1 * 17}{17} = \frac{23}{17}$$

$$1\frac{3}{20} = \frac{3 + 1 * 20}{20} = \frac{23}{20}$$

To divide $\frac{23}{17}$ by $\frac{23}{20}$, multiply

$$\frac{23}{17} \text{ by } \frac{20}{23}$$

$$\frac{23}{17} * \frac{20}{23}$$

$$\frac{(23 * 20)}{(17 * 23)}$$

$$\frac{(23^1 * 20)}{(17 * 23^1)}$$

$$1\frac{20}{17}$$

3) $1\frac{4}{19} \div 2\frac{1}{4}$

Convert the mixed numbers to improper fractions

$$1\frac{4}{19} = \frac{4 + 1 * 19}{19} = \frac{23}{19}$$

$$2\frac{1}{4} = \frac{8 + 1 * 4}{4} = \frac{12}{4}$$

To divide $\frac{23}{19}$ by $\frac{12}{4}$, multiply

$$\frac{23}{19} \text{ by } \frac{4}{12}$$

$$\frac{23}{19} * \frac{4}{12}$$

$$\frac{(23 * 4)}{(19 * 12)}$$

$$1\frac{92}{171}$$

4) $1\frac{4}{11} \div 1\frac{1}{27}$

Convert the mixed numbers to improper fractions

$$1\frac{4}{11} = \frac{4 + 1 * 11}{11} = \frac{15}{11}$$

$$1\frac{1}{27} = \frac{1 + 1 * 27}{27} = \frac{28}{27}$$

To divide $\frac{15}{11}$ by $\frac{28}{27}$, multiply

$$\frac{15}{11} \text{ by } \frac{27}{28}$$

$$\frac{15}{11} * \frac{27}{28}$$

$$\frac{(15 * 27)}{(11 * 28)}$$

$$1\frac{97}{308}$$

5) $2\frac{5}{6} \div 1\frac{4}{5}$

Convert the mixed numbers to improper fractions

$$2\frac{5}{6} = \frac{12 + 5}{6} = \frac{17}{6}$$

$$1\frac{4}{5} = \frac{9 + 4}{5} = \frac{13}{5}$$

To divide $\frac{17}{6}$ by $\frac{13}{5}$, multiply

$$\frac{17}{6} \text{ by } \frac{5}{13}$$

$$\frac{17}{6} * \frac{5}{13}$$

$$\frac{(17 * 5)}{(6 * 13)}$$

$$1\frac{85}{78}$$

6) $1\frac{3}{26} \div 1\frac{6}{23}$

Convert the mixed numbers to improper fractions

$$1\frac{3}{26} = \frac{3 + 1 * 26}{26} = \frac{29}{26}$$

$$1\frac{6}{23} = \frac{6 + 1 * 23}{23} = \frac{29}{23}$$

To divide $\frac{29}{26}$ by $\frac{29}{23}$, multiply

$$\frac{29}{26} \text{ by } \frac{23}{29}$$

$$\frac{29}{26} * \frac{23}{29}$$

$$\frac{(29 * 23)}{(26 * 29)}$$

$$\frac{(29^1 * 23)}{(26 * 29^1)}$$

$$1\frac{23}{26}$$

$$7) 1\frac{3}{22} \div 1\frac{1}{6}$$

Convert the mixed numbers to improper fractions

$$1\frac{3}{22} = \frac{1 * 22 + 3}{22} = \frac{25}{22}$$

$$1\frac{1}{6} = \frac{1 * 6 + 1}{6} = \frac{7}{6}$$

To divide $\frac{25}{22}$ by $\frac{7}{6}$, multiply

$$\frac{25}{22} \text{ by } \frac{6}{7}$$

$$\frac{25 * 6}{(22 * 7)}$$

$$\frac{(25 * 6^3)}{(22^1 * 7)}$$

$$\frac{75}{77}$$

$$\frac{75}{77}$$

$$8) 2\frac{5}{7} \div 1\frac{1}{4}$$

Convert the mixed numbers to improper fractions

$$2\frac{5}{7} = \frac{2 * 7 + 5}{7} = \frac{19}{7}$$

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

To divide $\frac{19}{7}$ by $\frac{5}{4}$, multiply

$$\frac{19}{7} \text{ by } \frac{4}{5}$$

$$\frac{19 * 4}{(7 * 5)}$$

$$\frac{6}{35}$$

$$2\frac{6}{35}$$

$$9) 3\frac{4}{6} \div 1\frac{1}{14}$$

Convert the mixed numbers to improper fractions

$$3\frac{4}{6} = \frac{3 * 6 + 4}{6} = \frac{22}{6}$$

$$1\frac{1}{14} = \frac{1 * 14 + 1}{14} = \frac{15}{14}$$

To divide $\frac{22}{6}$ by $\frac{15}{14}$, multiply

$$\frac{22}{6} \text{ by } \frac{14}{15}$$

$$\frac{22 * 14}{(6 * 15)}$$

$$\frac{(22^1 * 14)}{(6^3 * 15)}$$

$$\frac{19}{45}$$

$$3\frac{19}{45}$$

$$3\frac{19}{45}$$