Operations with Mixed Numbers (Show That)

Core Worksheet

Worked Examples & Guided Practice

I Do (Teacher Model) Show that $2\frac{1}{3} \times 1\frac{3}{5} = 3\frac{11}{15}$. You must show all your working.

We Do (Guided Practice) Show that $3\frac{1}{4} \div 1\frac{3}{8} = 2\frac{4}{11}$. You must show all your working.

You Do (Independent Practice) Show that $2\frac{2}{5} + 1\frac{3}{4} = 4\frac{3}{20}$. You must show all your working.

Challenge (Extension) Show that $\left(3\frac{1}{3} - 1\frac{5}{6}\right) \div 2\frac{1}{4} = \frac{2}{3}$. You must show all your working.

Practice Perfect Questions

Q1. Show that $1\frac{3}{4} + 2\frac{2}{3} = 4\frac{5}{12}$.

Q2. Show that $4\frac{1}{5} - 1\frac{3}{4} = 2\frac{9}{20}$.

Q3. Show that $2\frac{2}{3} \times 3\frac{1}{2} = 9\frac{1}{3}$.

Q4. Show that $5\frac{1}{3} \div 1\frac{7}{9} = 3$.

Q5. Show that $3\frac{1}{2} - 1\frac{5}{7} = 1\frac{11}{14}$.

Q6. Show that $2\frac{5}{8} \times 1\frac{1}{7} = 3$.

Answers & Worked Solutions

Model Solutions

- **I Do:** $\frac{7}{3} \times \frac{8}{5} = \frac{56}{15} = 3\frac{11}{15}$ ■
- **We Do:** $\frac{13}{4} \div \frac{11}{8} = \frac{13}{4} \times \frac{8}{11} = \frac{26}{11} = 2\frac{4}{11}$ ■
- **You Do:** $\frac{48}{20} + \frac{35}{20} = \frac{83}{20} = 4\frac{3}{20}$ ■
- **Challenge:** $\frac{10}{3} - \frac{11}{6} = \frac{9}{6} = \frac{3}{2}$; $\frac{3}{2} \div \frac{9}{4} = \frac{3}{2} \times \frac{4}{9} = \frac{12}{18} = \frac{2}{3}$ ■

Practice Perfect Questions Solutions

Q1. $\frac{7}{4} + \frac{8}{3} = \frac{21}{12} + \frac{32}{12} = \frac{53}{12} = 4\frac{5}{12}$

Q2. $\frac{21}{5} - \frac{7}{4} = \frac{84}{20} - \frac{35}{20} = \frac{49}{20} = 2\frac{9}{20}$

Q3. $\frac{8}{3} \times \frac{7}{2} = \frac{56}{6} = \frac{28}{3} = 9\frac{1}{3}$

Q4. $\frac{16}{3} \div \frac{16}{9} = \frac{16}{3} \times \frac{9}{16} = \frac{9}{3} = 3$

Q5. $\frac{49}{14} - \frac{24}{14} = \frac{25}{14} = 1\frac{11}{14}$

Q6. $\frac{21}{8} \times \frac{8}{7} = \frac{21}{7} = 3$