Varied Fluency
Step 14: Four Rules with Fractions

National Curriculum Objectives:

Mathematics Year 6: (6F2) Use common factors to simplify fractions; use common multiples to express fractions in the same denomination

Mathematics Year 6: (6F4) Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions

Mathematics Year 6: (6F5a) Multiply simple pairs of proper fractions, writing the answer in its simplest form [for example, $1/4 \times 1/2 = 1/8$]

Mathematics Year 6: (6F5b) Divide proper fractions by whole numbers [for example, $1/3 \div 2 = 1/6$]

Differentiation:

Developing Questions to support using all four operations with fractions with each question using only one denominator. Some pictorial support is given.

Expected Questions to support using all four operations with fractions. Fractions and mixed numbers are used and have denominators that are direct multiples.

Greater Depth Questions to support using all four operations with fractions. Proper fractions, improper fractions and mixed numbers are used and have denominators that are not always direct multiples.

More Year 6 Fractions resources.

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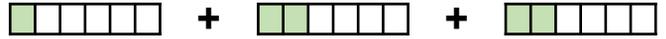
1a. Complete the number sentence.

$$\frac{1}{5} + \frac{2}{5} + \frac{1}{5} = \frac{\square}{\square}$$

■ + ■ + ■

D   VF

1b. Complete the number sentence.

$$\frac{1}{6} + \frac{2}{6} + \frac{2}{6} = \frac{\square}{\square}$$

■ + ■ + ■

D   VF

2a. True or false?

$$\left(\frac{4}{6} - \frac{2}{6}\right) \times 2 = \frac{4}{6}$$

D   VF

2b. True or false?

$$\left(\frac{2}{8} + \frac{1}{8}\right) \times 2 = \frac{5}{8}$$

D   VF

3a. Circle the correct answer to the calculation below.

$$\left(\frac{3}{4} - \frac{1}{4}\right) \div 2 = \frac{\square}{\square}$$

A. $\frac{1}{4}$ B. $\frac{2}{4}$ C. $\frac{1}{8}$

D   VF

3b. Circle the correct answer to the calculation below.

$$\left(\frac{2}{9} + \frac{2}{9}\right) \times 2 = \frac{\square}{\square}$$

A. $\frac{4}{9}$ B. $\frac{6}{9}$ C. $\frac{8}{9}$

D   VF

4a. Solve the following calculations.

A. $\left(\frac{1}{4} + \frac{2}{4}\right) \times 1 = \frac{\square}{\square}$

B. $\left(\frac{2}{8} - \frac{1}{8}\right) \times 3 = \frac{\square}{\square}$

D   VF

4b. Solve the following calculations.

A. $\left(\frac{4}{10} \div 2\right) + \frac{7}{10} = \frac{\square}{\square}$

B. $\left(\frac{7}{8} - \frac{3}{8}\right) \div 2 = \frac{\square}{\square} = \frac{\square}{\square}$

D   VF

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Varied Fluency – Four Rules with Fractions – Year 6 Developing

5a. Complete the number sentence.

$$\left(1\frac{1}{8} - \frac{2}{4}\right) + \frac{\square}{4} = 1\frac{3}{8}$$

VF

5b. Complete the number sentence.

$$\left(1\frac{2}{6} + \frac{1}{3}\right) - \frac{3}{6} = \boxed{}\frac{1}{6}$$

VF

6a. True or false?

$$\left(\frac{2}{2} \times \frac{2}{4}\right) \div 2 = \frac{3}{4}$$

VF

6b. True or false?

$$\left(\frac{2}{3} + \frac{2}{6}\right) \div 3 = \frac{1}{3}$$

VF

7a. Circle the correct answer to the calculation below.

$$\left(\frac{2}{3} \times \frac{5}{6}\right) \div 2 = \frac{\square}{\square}$$

A. $\frac{5}{9}$ B. $\frac{5}{18}$ C. $\frac{10}{18}$

VF

7b. Circle the correct answer to the calculation below.

$$\left(\frac{3}{8} + \frac{2}{4}\right) \div 7 = \frac{\square}{\square}$$

A. $\frac{1}{8}$ B. $\frac{7}{8}$ C. $\frac{5}{8}$

VF

8a. Solve the following calculations.

A. $\left(\dfrac{4}{8} \div 2\right) + \dfrac{1}{2} = \dfrac{\square}{\square} = \dfrac{\square}{\square}$

B. $\left(\dfrac{3}{4} \div 3\right) + \dfrac{7}{8} = \dfrac{\square}{\square}$

VF

8b. Solve the following calculations.

A. $\left(\dfrac{8}{10} \div 2\right) + \dfrac{1}{5} = \dfrac{\square}{\square} = \dfrac{\square}{\square}$

B. $\left(\dfrac{8}{12} \times 3\right) + \dfrac{3}{4} = \dfrac{\square}{\square}$

VF

9a. Complete the number sentence.

$$\left(2\frac{3}{7} + \frac{6}{8}\right) - \frac{5}{7} = \boxed{}\frac{\boxed{}}{28}$$

VF

9b. Complete the number sentence.

$$\left(7\frac{1}{3} + \frac{4}{7}\right) \div 3 = \boxed{}\frac{40}{\boxed{}}$$

VF

10a. True or false?

$$\left(\frac{3}{8} + \frac{1}{7}\right) \times 2 = \frac{8}{56} = \frac{1}{7}$$

VF

10b. True or false?

$$\left(\frac{5}{4} - \frac{5}{6}\right) \div 5 = \frac{1}{12}$$

VF

11a. Circle the correct answer to the calculation below.

$$\left(\frac{4}{5} \times \frac{7}{2}\right) \div 2 = \frac{\boxed{}}{\boxed{}}$$

A. $\frac{1}{14}$ B. $\frac{10}{14}$ C. $\frac{14}{10}$

VF

11b. Circle the correct answer to the calculation below.

$$\left(\frac{6}{11} + \frac{2}{3}\right) \times 2 = \frac{\boxed{}}{\boxed{}}$$

A. $\frac{80}{33}$ B. $\frac{8}{33}$ C. $\frac{8}{3}$

VF

12a. Solve the following calculations.

A. $\left(\dfrac{1}{4} + \dfrac{3}{5}\right) - \dfrac{6}{8} = \dfrac{\boxed{}}{\boxed{}} = \dfrac{\boxed{}}{\boxed{}}$

B. $\left(\dfrac{6}{7} \div 2\right) \times \dfrac{11}{4} = \boxed{}\dfrac{\boxed{}}{\boxed{}}$

VF

12b. Solve the following calculations.

A. $\left(\dfrac{13}{12} - \dfrac{2}{5}\right) \times 2 = \dfrac{\boxed{}}{\boxed{}}$

B. $\left(\dfrac{4}{9} \times 5\right) + \dfrac{4}{5} = \boxed{}\dfrac{\boxed{}}{\boxed{}}$

VF

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Developing

1a. $\frac{1}{5} + \frac{2}{5} + \frac{1}{5} = \boxed{\frac{4}{5}}$

2a. **True**

3a. **A**

4a. **A.** $\frac{3}{4}$; **B.** $\frac{3}{8}$

Developing

1b. $\frac{1}{6} + \frac{2}{6} + \frac{2}{6} = \boxed{\frac{5}{6}}$

2b. **False. The correct answer is** $\frac{3}{4}$.

3b. **C**

4b. **A.** $\frac{9}{10}$; **B.** $\frac{2}{8} = \frac{1}{4}$

Expected

5a. $(1\frac{1}{8} - \frac{2}{4}) + \boxed{\frac{3}{4}} = 1\frac{3}{8}$

6a. **False. The correct answer is** $\frac{1}{4}$.

7a. **B**

8a. **A.** $\frac{6}{8} = \frac{3}{4}$; **B.** $1\frac{1}{8}$

Expected

5b. $(1\frac{2}{6} + \frac{1}{3}) - \frac{3}{6} = \boxed{1}\frac{1}{6}$

6b. **True**

7b. **A**

8b. **A.** $\frac{6}{10} = \frac{3}{5}$; **B.** $2\frac{3}{4}$

Greater Depth

9a. $(2\frac{3}{7} + \frac{6}{8}) - \frac{5}{7} = \boxed{2}\boxed{\frac{13}{28}}$

10a. **False. The correct answer is**
$\frac{58}{56} = 1\frac{1}{28}$.

11a. **C**

12a. **A.** $\frac{4}{40} = \frac{1}{10}$; **B.** $1\frac{5}{28}$

Greater Depth

9b. $(7\frac{1}{3} + \frac{4}{7}) \div 3 = \boxed{2}\boxed{\frac{40}{63}}$

10b. **True**

11b. **A**

12b. **A.** $\frac{82}{60} = 1\frac{6}{15}$; **B.** $3\frac{1}{45}$

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