Divide Fractions Answers

1. Divide Fractions with Circles

Notice that #1 and #5 are inverse and #2 and #6 are inverse.

1. $\dfrac{2}{3} \div \dfrac{1}{3} = 2$

2. $1\dfrac{1}{3} \div \dfrac{1}{3} = 4$

3. $1\dfrac{3}{4} \div \dfrac{1}{4} = 7$

4. $1\dfrac{3}{4} \div \dfrac{1}{2} = 3\dfrac{1}{2}$

5. $\dfrac{1}{3} \div \dfrac{2}{3} = \dfrac{1}{2}$

6. $\dfrac{1}{3} \div 1\dfrac{1}{3} = \dfrac{1}{4}$

2. Divide Fractions with Lines

1. $1\dfrac{1}{2} \div \dfrac{1}{2} = 3$

2. $1\dfrac{1}{2} \div \dfrac{3}{4} = 2$

Notice that as the divisor increases the quotient decreases

3. $1\dfrac{1}{2} \div 2 = \dfrac{3}{4}$
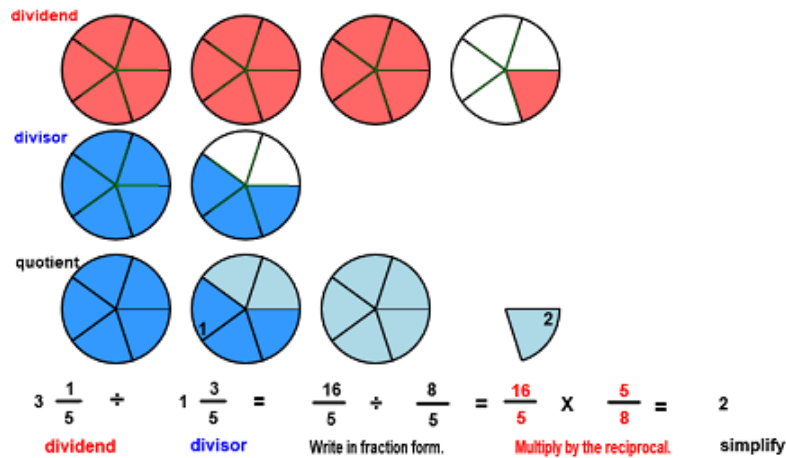
4. $1\dfrac{1}{2} \div 4 = \dfrac{3}{8}$

5. $1\dfrac{1}{2} \div 3 = \dfrac{1}{2}$
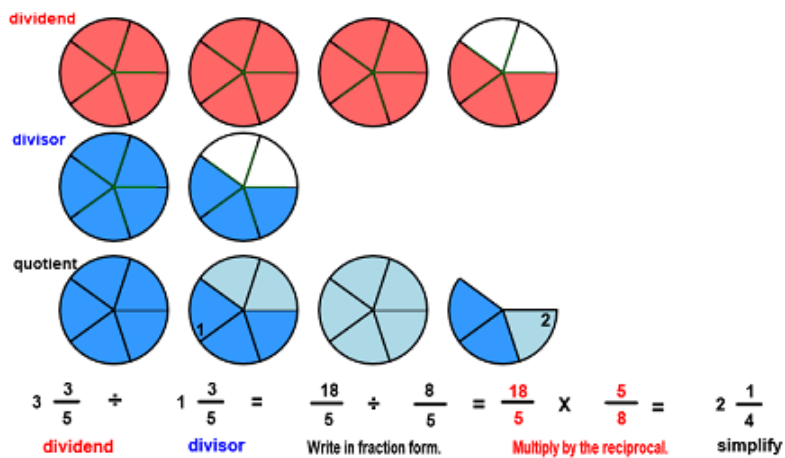
6. $3 \div 1\dfrac{1}{2} = 2$

Notice that the quotients in #5 and #6 are inverse.
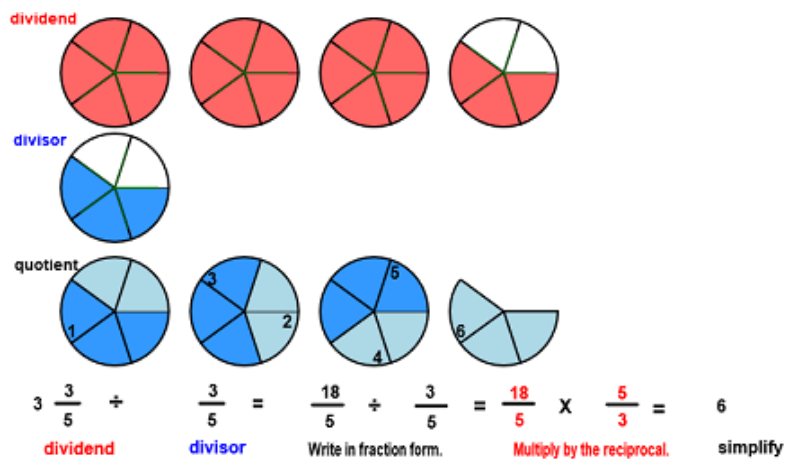
3. Divide Fractions with Circles

1.

$$3\frac{1}{5} \div 1\frac{3}{5} = \frac{16}{5} \div \frac{8}{5} = \frac{16}{5} \times \frac{5}{8} = 2$$

dividend   divisor   Write in fraction form.   Multiply by the reciprocal.   simplify

2.

$$3\frac{3}{5} \div 1\frac{3}{5} = \frac{18}{5} \div \frac{8}{5} = \frac{18}{5} \times \frac{5}{8} = 2\frac{1}{4}$$

dividend   divisor   Write in fraction form.   Multiply by the reciprocal.   simplify

3.

$$3\frac{3}{5} \div \frac{3}{5} = \frac{18}{5} \div \frac{3}{5} = \frac{18}{5} \times \frac{5}{3} = 6$$

dividend   divisor   Write in fraction form.   Multiply by the reciprocal.   simplify

4.

$$3\frac{3}{5} \div \frac{2}{5} = \frac{18}{5} \div \frac{2}{5} = \frac{18}{5} \times \frac{5}{2} = 9$$

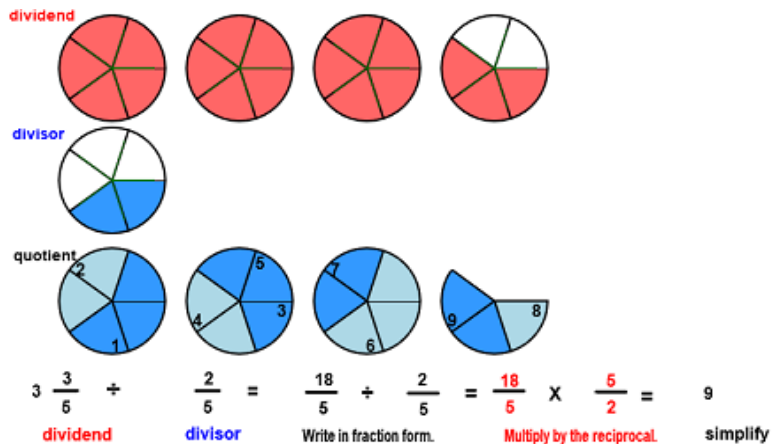dividend   divisor   Write in fraction form.   Multiply by the reciprocal.   simplify
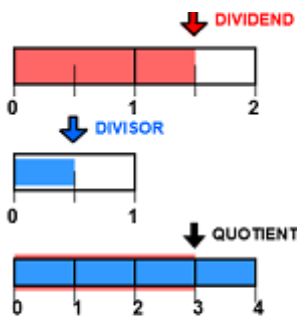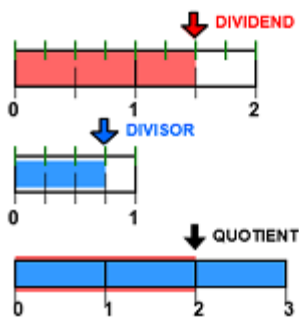
4. Divide Fractions with Lines

1.

$$1\frac{1}{2} \div \frac{1}{2} = \frac{3}{2} \div \frac{1}{2} = \frac{3}{2} \times \frac{2}{1} = 3$$

dividend   divisor   Write in fraction form.   Multiply by the reciprocal.   simplify

2.

$$1\frac{1}{2} \div \frac{3}{4} = \frac{3}{2} \div \frac{3}{4} = \frac{3}{2} \times \frac{4}{3} = 2$$

dividend   divisor   Write in fraction form.   Multiply by the reciprocal.   simplify

3.

$$1\frac{1}{2} \div 1\frac{1}{2} = \frac{3}{2} \div \frac{3}{2} = \frac{3}{2} \times \frac{2}{3} = 1$$

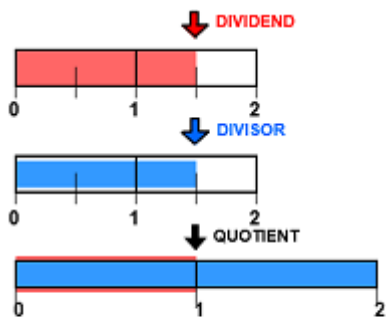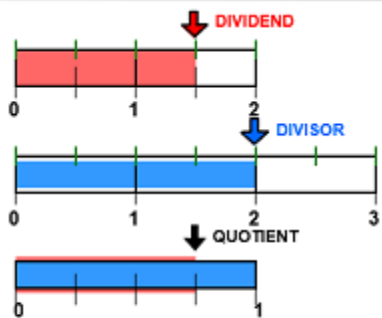dividend   divisor   Write in fraction form.   Multiply by the reciprocal.   simplify
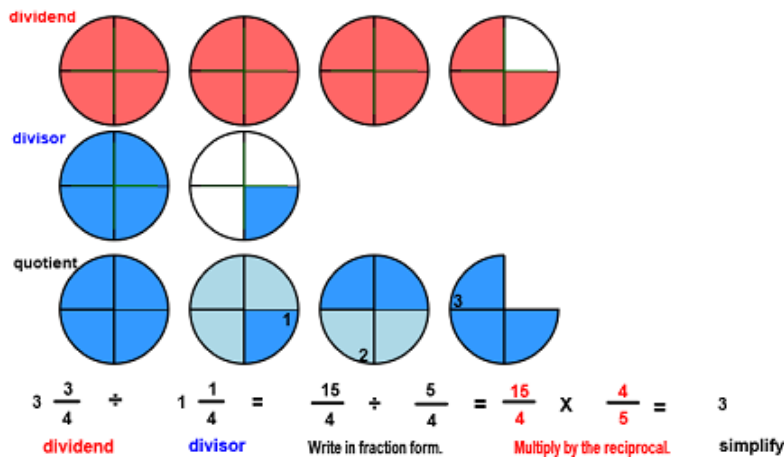
4.

$$1\frac{1}{2} \div 2 = \frac{3}{2} \div \frac{2}{1} = \frac{3}{2} \times \frac{1}{2} = \frac{3}{4}$$
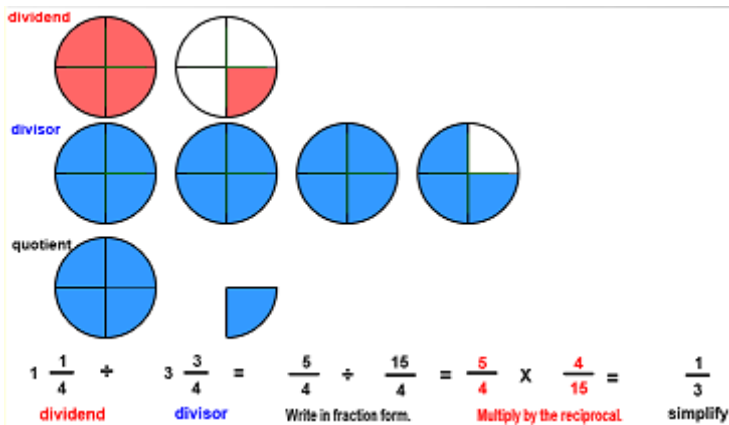
dividend   divisor   Write in fraction form.   Multiply by the reciprocal.   simplify

5 Divide Fractions with Circles

1.

$$3\frac{3}{4} \div 1\frac{1}{4} = \frac{15}{4} \div \frac{5}{4} = \frac{15}{4} \times \frac{4}{5} = 3$$

dividend   divisor   Write in fraction form.   Multiply by the reciprocal.   simplify

2.

$$1\frac{1}{4} \div 3\frac{3}{4} = \frac{5}{4} \div \frac{15}{4} = \frac{5}{4} \times \frac{4}{15} = \frac{1}{3}$$

dividend   divisor   Write in fraction form.   Multiply by the reciprocal.   simplify

3.

$$1\frac{1}{2} \div \frac{3}{4} = \frac{3}{2} \div \frac{3}{4} = \frac{3}{2} \times \frac{4}{3} = 2$$

dividend   divisor   Write in fraction form.   Multiply by the reciprocal.   simplify

4.

$$\frac{3}{4} \div 1\frac{1}{2} = \frac{3}{4} \div \frac{3}{2} = \frac{3}{4} \times \frac{2}{3} = \frac{1}{2}$$

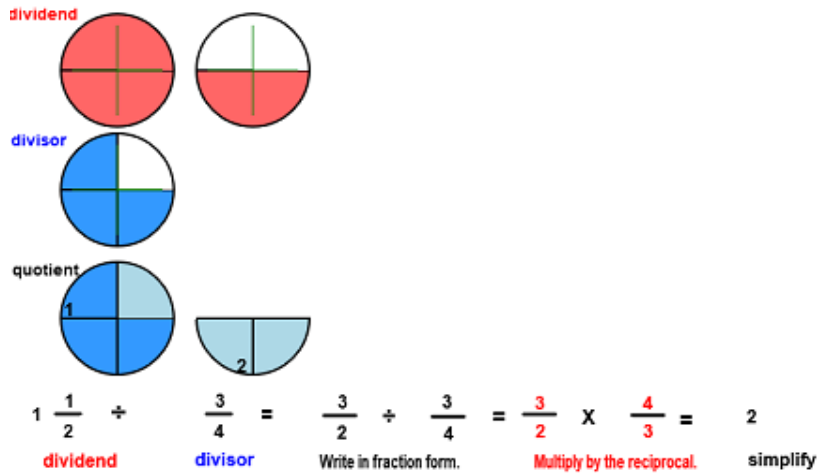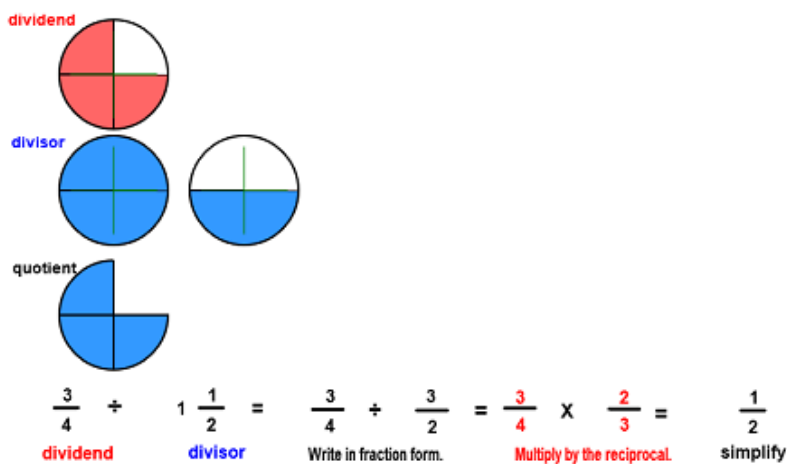dividend   divisor   Write in fraction form.   Multiply by the reciprocal.   simplify

6. Divide Fractions with Lines

1.

$$3\frac{1}{2} \div \frac{1}{2} = \frac{7}{2} \div \frac{1}{2} = \frac{7}{2} \times \frac{2}{1} = 7$$

dividend　divisor　Write in fraction form.　Multiply by the reciprocal.　simplify

2.

$$3\frac{1}{2} \div 1\frac{1}{2} = \frac{7}{2} \div \frac{3}{2} = \frac{7}{2} \times \frac{2}{3} = 2\frac{1}{3}$$

dividend　divisor　Write in fraction form.　Multiply by the reciprocal.　simplify

3.

$$3\frac{1}{2} \div 3 = \frac{7}{2} \div \frac{3}{1} = \frac{7}{2} \times \frac{1}{3} = 1\frac{1}{6}$$

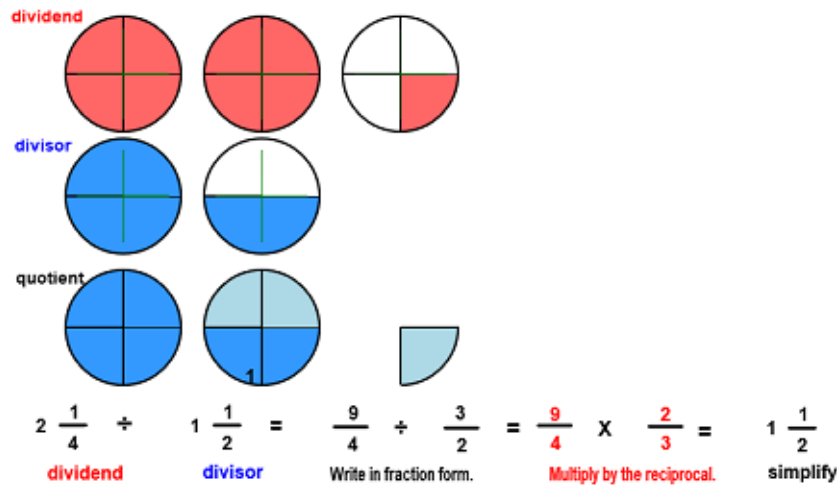dividend　divisor　Write in fraction form.　Multiply by the reciprocal.　simplify

4.

$$3\frac{1}{2} \div 4 = \frac{7}{2} \div \frac{4}{1} = \frac{7}{2} \times \frac{1}{4} = \frac{7}{8}$$
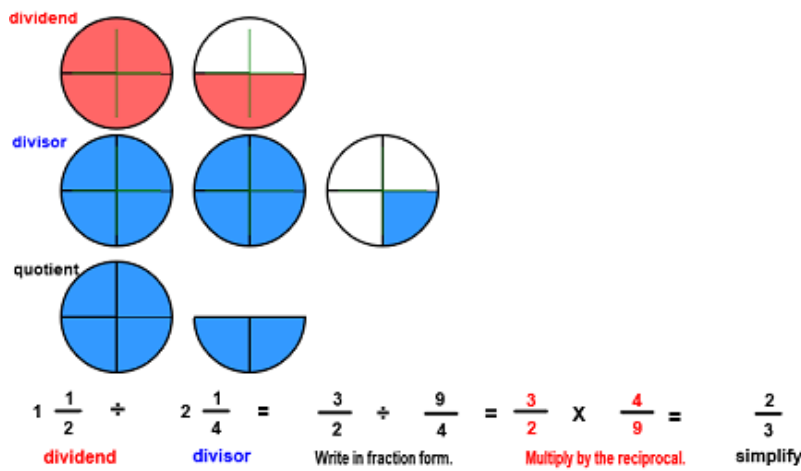
dividend　divisor　Write in fraction form.　Multiply by the reciprocal.　simplify

7. Divide Fractions with Circles and Lines

1.

dividend

divisor

quotient

$$2\frac{1}{4} \div 1\frac{1}{2} = \frac{9}{4} \div \frac{3}{2} = \frac{9}{4} \times \frac{2}{3} = 1\frac{1}{2}$$

dividend　　　divisor　　Write in fraction form.　Multiply by the reciprocal.　simplify

2.

dividend

divisor

quotient

$$1\frac{1}{2} \div 2\frac{1}{4} = \frac{3}{2} \div \frac{9}{4} = \frac{3}{2} \times \frac{4}{9} = \frac{2}{3}$$

dividend　　　divisor　　Write in fraction form.　Multiply by the reciprocal.　simplify

3.

DIVIDEND

DIVISOR

QUOTIENT

$$2\frac{1}{4} \div 1\frac{1}{2} = \frac{9}{4} \div \frac{3}{2} = \frac{9}{4} \times \frac{2}{3} = 1\frac{1}{2}$$

dividend　　　divisor　　Write in fraction form.　Multiply by the reciprocal.　simplify

4.

DIVIDEND

DIVISOR

QUOTIENT

$$1\frac{1}{2} \div 2\frac{1}{4} = \frac{3}{2} \div \frac{9}{4} = \frac{3}{2} \times \frac{4}{9} = \frac{2}{3}$$

dividend　　　divisor　　Write in fraction form.　Multiply by the reciprocal.　simplify

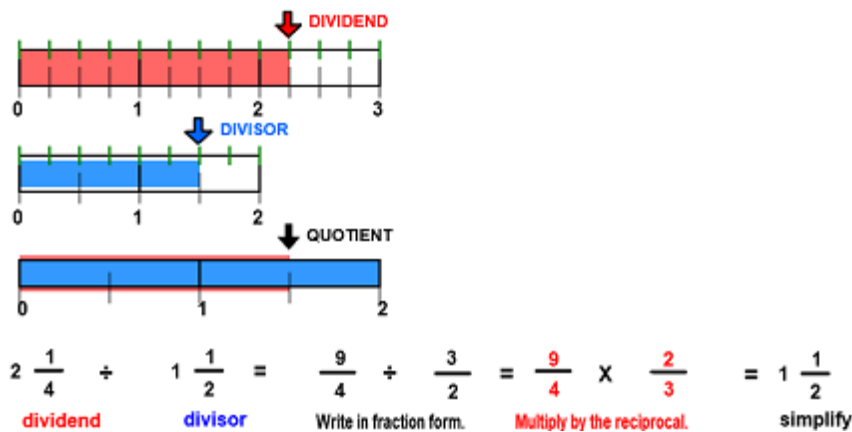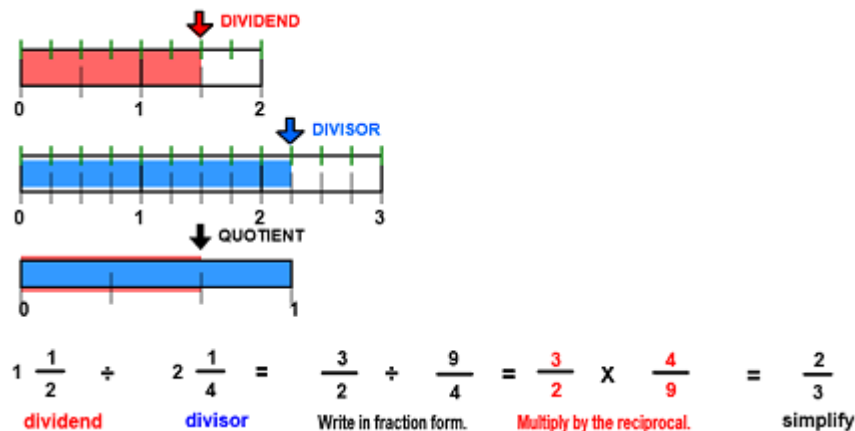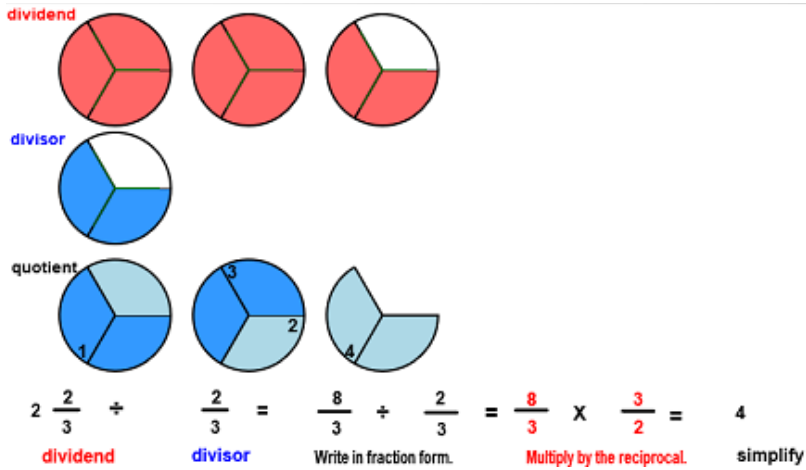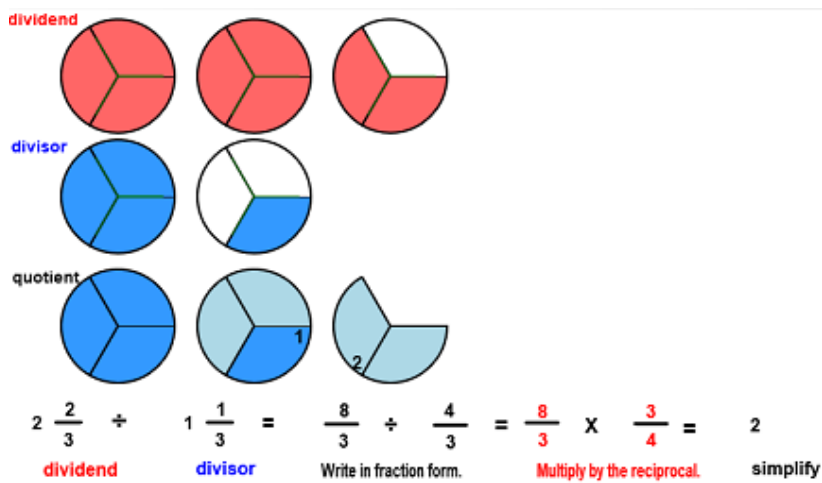## 8. Divide Fractions with Circles and Lines

1.

$$2\frac{2}{3} \div \frac{2}{3} = \frac{8}{3} \div \frac{2}{3} = \frac{8}{3} \times \frac{3}{2} = 4$$

dividend   divisor   Write in fraction form.   Multiply by the reciprocal.   simplify

2.

$$2\frac{2}{3} \div 1\frac{1}{3} = \frac{8}{3} \div \frac{4}{3} = \frac{8}{3} \times \frac{3}{4} = 2$$

dividend   divisor   Write in fraction form.   Multiply by the reciprocal.   simplify

3.

$$1\frac{1}{2} \div \frac{1}{4} = \frac{3}{2} \div \frac{1}{4} = \frac{3}{2} \times \frac{4}{1} = 6$$

dividend   divisor   Write in fraction form.   Multiply by the reciprocal.   simplify

4.

$$1\frac{1}{2} \div 4 = \frac{3}{2} \div \frac{4}{1} = \frac{3}{2} \times \frac{1}{4} = \frac{3}{8}$$

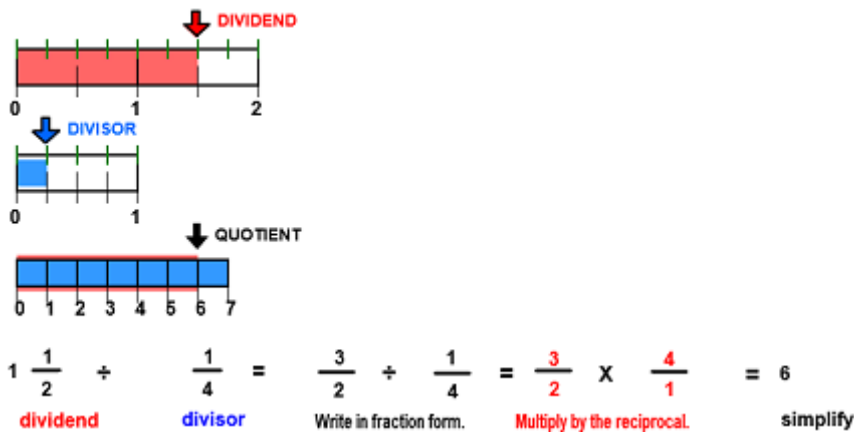dividend   divisor   Write in fraction form.   Multiply by the reciprocal.   simplify
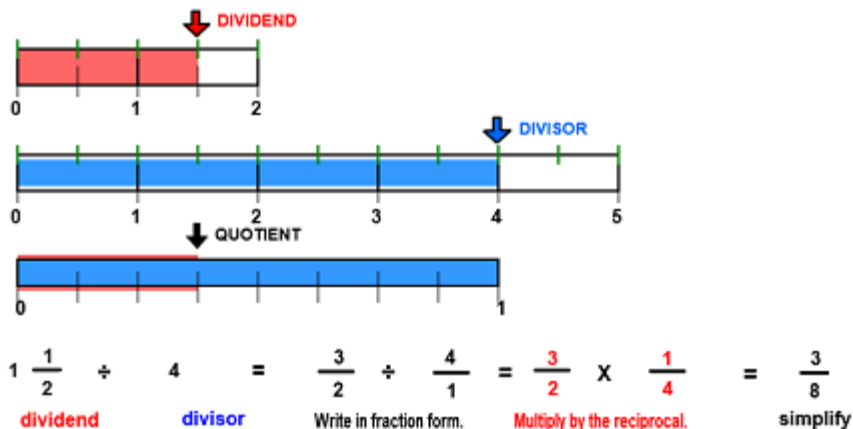
9. Divide Practice

1. $1 \dfrac{5}{8} \div \dfrac{5}{8} = \dfrac{13}{8} \div \dfrac{5}{8} = \dfrac{13}{8} \times \dfrac{8}{5} = 2 \dfrac{3}{5}$

2. $1 \dfrac{5}{8} \div 1 \dfrac{5}{8} = \dfrac{13}{8} \div \dfrac{13}{8} = \dfrac{13}{8} \times \dfrac{8}{13} = 1$

3. $1 \dfrac{5}{8} \div 2 \dfrac{5}{8} = \dfrac{13}{8} \div \dfrac{21}{8} = \dfrac{13}{8} \times \dfrac{8}{21} = \dfrac{13}{21}$

4. $\dfrac{5}{6} \div 2 \dfrac{1}{2} = \dfrac{5}{6} \div \dfrac{5}{2} = \dfrac{5}{6} \times \dfrac{2}{5} = \dfrac{1}{3}$

5. $1 \dfrac{5}{6} \div 2 \dfrac{1}{2} = \dfrac{11}{6} \div \dfrac{5}{2} = \dfrac{11}{6} \times \dfrac{2}{5} = \dfrac{11}{15}$

6. $2 \dfrac{5}{6} \div 2 \dfrac{1}{2} = \dfrac{17}{6} \div \dfrac{5}{2} = \dfrac{17}{6} \times \dfrac{2}{5} = 1 \dfrac{2}{15}$

7. $2 \dfrac{5}{6} \div 1 \dfrac{1}{2} = \dfrac{17}{6} \div \dfrac{3}{2} = \dfrac{17}{6} \times \dfrac{2}{3} = 1 \dfrac{8}{9}$

8. $2 \dfrac{5}{6} \div 1 \dfrac{1}{3} = \dfrac{17}{6} \div \dfrac{4}{3} = \dfrac{17}{6} \times \dfrac{3}{4} = 2 \dfrac{1}{8}$

9. $2 \dfrac{5}{6} \div 1 = \dfrac{17}{6} \div \dfrac{1}{1} = \dfrac{17}{6} \times \dfrac{1}{1} = 2 \dfrac{5}{6}$

10. $2 \dfrac{5}{6} \div \dfrac{2}{3} = \dfrac{17}{6} \div \dfrac{2}{3} = \dfrac{17}{6} \times \dfrac{3}{2} = 4 \dfrac{1}{4}$

11. $2 \dfrac{5}{6} \div \dfrac{1}{3} = \dfrac{17}{6} \div \dfrac{1}{3} = \dfrac{17}{6} \times \dfrac{3}{1} = 8 \dfrac{1}{2}$

12. $2 \dfrac{5}{6} \div \dfrac{1}{6} = \dfrac{17}{6} \div \dfrac{1}{6} = \dfrac{17}{6} \times \dfrac{6}{1} = 17$