

Exercise 1 (answers on page 40)

Multiply these fractions. Cancel and ~~simplify~~ ^{reduce} if possible; leave improper.

1. $\frac{1}{8} \times \frac{2}{3} =$

2. $\frac{1}{5} \times \frac{4}{9} =$

3. $\frac{3}{5} \times \frac{10}{11} =$

4. $\frac{8}{9} \times \frac{3}{4} =$

5. $\frac{7}{10} \times \frac{2}{21} =$

6. $\frac{3}{4} \times \frac{5}{7} =$

7. $\frac{5}{9} \times \frac{7}{8} =$

8. $6 \times \frac{1}{3} =$

9. $\frac{5}{9} \times 9 =$

10. $10 \times \frac{1}{2} =$

11. $\frac{1}{3} \times 12 =$

12. $\frac{15}{16} \times \frac{8}{10} =$

13. $\frac{7}{8} \times \frac{12}{13} =$

14. $\frac{6}{9} \times \frac{1}{3} =$

15. $\frac{5}{10} \times \frac{3}{4} =$

16. $\frac{16}{17} \times \frac{23}{24} =$

17. $\frac{5}{16} \times \frac{20}{30} =$

18. $\frac{9}{10} \times \frac{50}{100} =$

Dividing Fractions

When dividing fractions, invert (turn over) the fraction to the right of the \div ("divide by") symbol. Cancel (if possible) then multiply.

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

Ex. 2: $\frac{3}{5} \div 5 = \frac{3}{5} \div \frac{5}{1} = \frac{3}{5} \times \frac{1}{5} = \frac{3}{25}$

Exercise 3 (answers on page 40)

Divide these fractions. Cancel if necessary and simplify

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

2. $\frac{9}{10} \div \frac{1}{2} =$

3. $\frac{3}{4} \div \frac{1}{4} =$

4. $\frac{9}{11} \div \frac{7}{22} =$

5. $\frac{2}{5} \div \frac{1}{6} =$

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

7. $\frac{7}{8} \div \frac{1}{4} =$

8. $\frac{1}{5} \div \frac{1}{6} =$

9. $\frac{5}{8} \div \frac{15}{16} =$

10. $\frac{15}{16} \div \frac{5}{8} =$

11. $\frac{7}{12} \div \frac{3}{4} =$

12. $\frac{8}{9} \div \frac{9}{8} =$

13. $2 \div \frac{3}{8} =$

14. $6 \div \frac{1}{2} =$

15. $\frac{3}{4} \div 4 =$

HW #1: 1-15, 1-15
multiply divide
Multiply instructions on daily blog.

Adding and Subtracting of Fractions

When adding or subtracting, there must be a common denominator. If the denominators are different:

- Write the problem vertically (top to bottom)
- Find the LCD
- Change to equivalent fractions (by building)
- Add or subtract the numerators (leave the denominators the same)
- Simplify and reduce, if possible

Ex. 1: $\frac{3}{5} + \frac{1}{5} = \frac{4}{5}$ The denominators are the same. Add the numerators, keep the denominator. This fraction cannot be simplified or reduced.

$$\frac{1}{2} = \frac{2}{4}$$

$$\frac{1}{4} = \frac{1}{4}$$

Ex. 2: $\frac{1}{2} + \frac{1}{4} = ?$ + $\frac{1}{4} = \frac{1}{4}$

$$\frac{3}{4}$$

$$\frac{5}{8} = \frac{15}{24}$$

$$\frac{1}{3} = \frac{8}{24}$$

Ex. 3: $\frac{5}{8} - \frac{1}{3} = ?$ - $\frac{1}{3} = \frac{8}{24}$

$$\frac{7}{24}$$

$$\frac{2}{3} = \frac{8}{12}$$

$$\frac{3}{4} = \frac{9}{12}$$

Ex. 4: $\frac{2}{3} + \frac{3}{4} = ?$ + $\frac{9}{12}$

$$\frac{17}{12} = \frac{17}{12}$$

$$\frac{11}{15} = \frac{11}{15}$$

$$\frac{1}{3} = \frac{5}{15}$$

Ex. 5: $\frac{11}{15} - \frac{1}{3} = ?$ - $\frac{5}{15}$

$$\frac{6}{15} = \frac{2}{5}$$

The denominators are different numbers. Therefore, change to equivalent fractions. See page 25

Simplifying and reducing completes addition and subtraction problems. See page 25 & 27

Exercise 4

(answers on page 41)

Add or subtract the following fractions. Simplify and reduce when possible, *leave improper*.

1) $\frac{2}{7} + \frac{3}{7} =$

2) $\frac{9}{14} + \frac{1}{14} =$

3) $\frac{1}{6} + \frac{3}{6} =$

4) $\frac{3}{5} + \frac{1}{4} =$

5) $\frac{2}{3} + \frac{1}{2} =$

6) $\frac{4}{5} + \frac{1}{2} =$

7) $\frac{2}{4} + \frac{3}{6} =$

8) $\frac{5}{6} + \frac{3}{8} =$

9) $\frac{7}{9} + \frac{2}{3} =$

10) $\frac{3}{4} - \frac{1}{2} =$

11) $\frac{3}{5} - \frac{1}{3} =$

12) $\frac{7}{8} - \frac{2}{3} =$

13) $\frac{5}{12} - \frac{1}{4} =$

14) $\frac{9}{11} - \frac{1}{2} =$

15) $\frac{11}{12} - \frac{5}{6} =$

16) $\frac{1}{2} - \frac{1}{3} =$

17) $\frac{5}{6} - \frac{1}{4} =$

18) $\frac{9}{10} - \frac{1}{3} =$

19) $\frac{8}{20} + \frac{1}{5} =$

20) $\frac{14}{15} - \frac{1}{6} =$

21) $\frac{4}{7} - \frac{3}{8} =$

22) $\frac{6}{12} + \frac{1}{2} =$

23) $\frac{8}{9} - \frac{2}{3} =$

24) $\frac{12}{16} + \frac{5}{8} =$

25) $\frac{3}{7} - \frac{1}{6} =$

26) $\frac{4}{5} - \frac{6}{10} =$

27) $\frac{2}{13} + \frac{2}{3} =$