

Proper and Improper Fractions

A **fraction** is defined as a ratio of two numbers, where the number at the bottom cannot be equal to zero.

$$\frac{x}{y} \text{ where } y \neq 0$$

In a fraction the number at the top is called the numerator, and the number at the bottom is called the denominator.

$$\frac{x}{y} = \frac{\text{numerator}}{\text{denominator}}$$

There are two different kinds of fractions, **Proper** and **Improper**.

In a proper fraction the numerator (the number at the top) is less than the denominator (the number at the bottom).

In an improper fraction, the numerator is greater than the denominator.

Proper fraction: numerator < denominator **Example:** $\frac{3}{4}$

Improper fraction: numerator > denominator **Example:** $\frac{4}{3}$

Identify whether the following are Proper or Improper fractions. Write "P" for Proper and "I" for Improper fractions.

1. $\frac{1}{2}$

2. $\frac{4}{3}$

3. $\frac{5}{6}$

4. $\frac{7}{9}$

5. $\frac{2}{5}$

6. $\frac{2}{7}$

7. $\frac{3}{8}$

8. $\frac{2}{9}$

9. $\frac{7}{10}$

10. $\frac{10}{7}$

11. $\frac{5}{2}$

12. $\frac{7}{2}$

13. $\frac{4}{3}$

14. $\frac{1}{6}$

15. $\frac{6}{4}$

16. $\frac{7}{4}$

17. $\frac{9}{4}$

18. $\frac{4}{9}$

