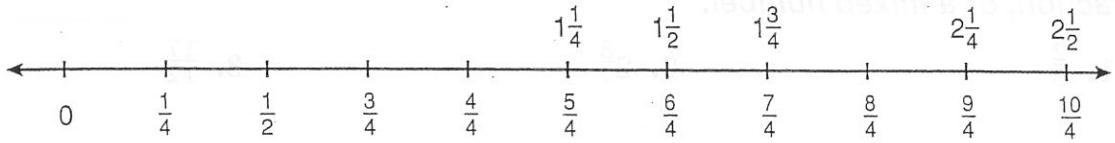
Name _____ Date _____

Study Guide Worksheet 5-1

Mixed Numbers and Improper Fractions

Mixed Numbers (a whole number and a fraction)



Proper Fractions
(The numerator is less than the denominator).

Improper Fractions
(The numerator is equal to or greater than the denominator.)

To change a mixed number to an improper fraction, multiply the whole number by the denominator. Add the numerator to the product. Write the sum over the denominator.

Example $2\frac{1}{4} = \frac{(2 \times 4) + 1}{4} = \frac{9}{4}$

To change an improper fraction to a whole number or a mixed number, divide the numerator by the denominator.

Examples $\frac{7}{4} = 7 \div 4$

$$4\overline{)7} \quad 1 \quad -4 \quad 3$$

$\frac{7}{4} = 1\frac{3}{4}$

$\frac{8}{4} = 8 \div 4$

$$4\overline{)8} \quad 2 \quad -8 \quad 0$$

$\frac{8}{4} = 2$

Identify each number as a proper fraction, an improper fraction, or a mixed number.

1. $\frac{10}{3}$ 2. $1\frac{1}{9}$ 3. $\frac{11}{12}$ 4. $\frac{12}{4}$ 5. $\frac{2}{7}$

Change each improper fraction to a mixed number in simplest form or a whole number.

6. $\frac{18}{4}$ 7. $\frac{23}{9}$ 8. $\frac{8}{2}$ 9. $\frac{34}{5}$ 10. $\frac{9}{3}$

Change each mixed number to an improper fraction.

11. $2\frac{6}{7}$ 12. $1\frac{3}{10}$ 13. $5\frac{2}{3}$ 14. $3\frac{1}{9}$ 15. $1\frac{1}{7}$

Name _____ Date _____

Practice Worksheet 5-1

Mixed Numbers and Improper Fractions

Identify each number as a proper fraction, an improper fraction, or a mixed number.

1. $\frac{2}{3}$
2. $2\frac{3}{7}$
3. $\frac{17}{12}$

Change each improper fraction to a mixed number in simplest form or a whole number.

4. $\frac{8}{5}$
5. $\frac{30}{6}$
6. $\frac{27}{2}$
7. $\frac{21}{3}$
8. $\frac{18}{5}$
9. $\frac{41}{6}$
10. $\frac{14}{3}$
11. $\frac{29}{4}$
12. $\frac{108}{9}$

Change each mixed number or whole number to an improper fraction.

13. $2\frac{3}{4}$
14. $1\frac{2}{5}$
15. $5\frac{1}{3}$
16. $3\frac{5}{9}$
17. 6
18. $7\frac{1}{2}$
19. 23
20. $4\frac{9}{13}$
21. $3\frac{7}{10}$