

Name: \_\_\_\_\_

## Improper Fractions & Mixed Numbers

Write each mixed number as an improper fraction

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

b.  $8 \frac{3}{8} =$

c.  $2 \frac{5}{6} =$

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

e.  $5 \frac{1}{3} =$

f.  $10 \frac{7}{12} =$

g.  $9 \frac{1}{4} =$

h.  $6 \frac{5}{6} =$

i.  $7 \frac{5}{6} =$

j.  $10 \frac{3}{7} =$

k.  $11 \frac{1}{3} =$

l.  $20 \frac{1}{2} =$

Write each improper fraction as a mixed number.

m.  $\frac{7}{5} =$

n.  $\frac{9}{4} =$

o.  $\frac{5}{3} =$

p.  $\frac{22}{9} =$

q.  $\frac{13}{7} =$

r.  $\frac{9}{2} =$

s.  $\frac{17}{9} =$

t.  $\frac{7}{3} =$

u.  $\frac{17}{7} =$

v.  $\frac{10}{3} =$



- w. Mrs. Jones bakes pies. She always cuts each pie into 8 slices. There are 13 slices left on the counter. Write the number of pies on the counter as a mixed number and as an improper fraction.
- \_\_\_\_\_

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Teacher : \_\_\_\_\_

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### Converting Improper Fractions to Mixed Numbers

1)  $\frac{7}{2} =$  \_\_\_\_\_

2)  $\frac{13}{4} =$  \_\_\_\_\_

3)  $\frac{229}{32} =$  \_\_\_\_\_

4)  $\frac{152}{32} =$  \_\_\_\_\_

5)  $\frac{54}{8} =$  \_\_\_\_\_

6)  $\frac{183}{64} =$  \_\_\_\_\_

7)  $\frac{54}{8} =$  \_\_\_\_\_

8)  $\frac{38}{8} =$  \_\_\_\_\_

9)  $\frac{11}{2} =$  \_\_\_\_\_

10)  $\frac{161}{64} =$  \_\_\_\_\_

11)  $\frac{452}{64} =$  \_\_\_\_\_

12)  $\frac{27}{4} =$  \_\_\_\_\_

13)  $\frac{276}{64} =$  \_\_\_\_\_

14)  $\frac{78}{16} =$  \_\_\_\_\_

15)  $\frac{113}{16} =$  \_\_\_\_\_

### Converting Mixed Numbers to Improper Fractions

1)  $5\frac{1}{4} =$  \_\_\_\_\_

2)  $5\frac{13}{16} =$  \_\_\_\_\_

3)  $2\frac{1}{8} =$  \_\_\_\_\_

4)  $6\frac{1}{16} =$  \_\_\_\_\_

5)  $6\frac{1}{32} =$  \_\_\_\_\_

6)  $7\frac{1}{2} =$  \_\_\_\_\_

7)  $6\frac{1}{2} =$  \_\_\_\_\_

8)  $4\frac{3}{16} =$  \_\_\_\_\_

9)  $7\frac{1}{4} =$  \_\_\_\_\_

10)  $8\frac{5}{32} =$  \_\_\_\_\_

11)  $4\frac{3}{4} =$  \_\_\_\_\_

12)  $2\frac{1}{2} =$  \_\_\_\_\_

13)  $7\frac{49}{64} =$  \_\_\_\_\_

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

15)  $7\frac{1}{2} =$  \_\_\_\_\_

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### Converting Improper Fractions to Mixed Numbers

1)  $\frac{17}{3} = \underline{\quad}$       2)  $\frac{25}{7} = \underline{\quad}$       3)  $\frac{13}{2} = \underline{\quad}$

4)  $\frac{23}{9} = \underline{\quad}$       5)  $\frac{19}{4} = \underline{\quad}$       6)  $\frac{44}{9} = \underline{\quad}$

7)  $\frac{50}{8} = \underline{\quad}$       8)  $\frac{9}{2} = \underline{\quad}$       9)  $\frac{20}{7} = \underline{\quad}$

10)  $\frac{30}{4} = \underline{\quad}$       11)  $\frac{50}{12} = \underline{\quad}$       12)  $\frac{44}{9} = \underline{\quad}$

13)  $\frac{86}{11} = \underline{\quad}$       14)  $\frac{26}{5} = \underline{\quad}$       15)  $\frac{27}{4} = \underline{\quad}$

### Converting Mixed Numbers to Improper Fractions

1)  $4\frac{1}{6} = \underline{\quad}$       2)  $3\frac{2}{5} = \underline{\quad}$       3)  $8\frac{1}{2} = \underline{\quad}$

4)  $3\frac{1}{2} = \underline{\quad}$       5)  $7\frac{1}{5} = \underline{\quad}$       6)  $2\frac{1}{3} = \underline{\quad}$

7)  $3\frac{6}{11} = \underline{\quad}$       8)  $5\frac{7}{10} = \underline{\quad}$       9)  $5\frac{1}{2} = \underline{\quad}$

10)  $4\frac{5}{6} = \underline{\quad}$       11)  $3\frac{2}{5} = \underline{\quad}$       12)  $8\frac{1}{8} = \underline{\quad}$

13)  $8\frac{4}{5} = \underline{\quad}$       14)  $2\frac{3}{4} = \underline{\quad}$       15)  $9\frac{5}{7} = \underline{\quad}$

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## Improper Fractions and Mixed Numbers Practice

1. Write the following improper fractions as mixed numbers.

$\frac{25}{3}$

$\frac{17}{6}$

$\frac{27}{5}$

$\frac{9}{2}$

$\frac{30}{4}$

2. Write the following mixed numbers as improper fractions

$4\frac{3}{4}$

$5\frac{4}{7}$

$7\frac{5}{10}$

$10\frac{5}{8}$

$4\frac{1}{3}$

3. You are filling 5 bottles with water. To fill one bottle, you need  $1\frac{1}{4}$  cups of water. You can find only a quarter-cup measure. How many quarter-cups of water do you need?

4. You walk to and from school five days a week. You live a quarter mile away from the school. Write the total distance you walk in a week as an improper fraction and as a mixed number. **Show all work.**

5. The presidential Physical Fitness Award involves a flexibility test called the V-sit reach. The distances, in inches, that four students were able to reach are listed below. Order the distances from least to greatest. **Show all work.**

$3\frac{5}{8}$

$3$

$\frac{17}{4}$

$3\frac{1}{2}$

6. Using complete sentences, describe and correct the error in writing  $5\frac{2}{3}$  as an improper fraction.

$$\times \quad 5\frac{2}{3} = \frac{(5 + 3) \cdot 2}{3} = \frac{16}{3}$$

Copy and complete the statement using  $<$ ,  $>$ , or  $=$ .

7.  $\frac{3}{2}$  ?  $3\frac{1}{2}$

8.  $\frac{8}{3}$  ?  $2\frac{2}{3}$

9.  $\frac{22}{3}$  ?  $7\frac{1}{4}$

10.  $\frac{29}{5}$  ?  $6\frac{3}{5}$

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## Guided Notes: Combining Like Terms

Learning Objective: I can identify the coefficient, variable, and constant in an algebraic expression. I can identify and combine like terms.

$$4x + 7 - 5$$

Coefficient: \_\_\_\_\_

Variable: \_\_\_\_\_

Constant: \_\_\_\_\_

<b>LIKE TERMS:</b>	

- ★ To combine like terms, add or subtract the \_\_\_\_\_ (number in front of the variable) and keep the exponents the same.
- ★ If the coefficient is missing, it is always positive or negative. Coefficients take the sign \_\_\_\_\_ of them.

Say we have the expression...

$$-2x + 3 - 4x + 5 - 4x^2 + 11 - 15x + 2x^2 - 15$$

$$x + 2x - 9 + xy - 2 - 3x + 2xy - 4 - 3yx$$

$$4x + yz - 3 + 2x + 4xyz - x + 8 + 2zy - 9$$

Additional Practice

$$2xyz - 5x^2 + 7 - xy + 9xyz - 11 + 2x^2$$

$$5ab - b + 7ba + b - 1 + 2z + 7a + 10b + 8$$

$$5a + 7c - 2a + 4d - 12c + 8a - 3c + 15d + 5ac - d^2 + 1a - b + c - 2ad$$

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Combine like terms for each expression.

1)  $19m + 23n + m - 3n$

2)  $10c + 9 - 7c$

3)  $y + 50 - 15$

4)  $m + 10 - 7$

5)  $13a + 45 + a$

6)  $15m + 12n + 5m - 3n$

7)  $r + 25 - 5$

8)  $13q + 12r - 12q + 5r + 10$

9)  $12m + 37 + 13n + 4m - 9n$

10)  $11b + 14c - 5b + 3c + 35$

11)  $5m + 9 + 2m$

12)  $90m + 15n - 5m + 3n + 5$

13)  $13a + 12b + 3a - 3b$

14)  $19a + 12b + a - 2b$

15)  $17a + 1b - 7a + 3b + 17$

16)  $3a + 15 + a$

17)  $13x + 18 - 3x$

18)  $10m + 90 + 65n + 13m - 3n$

19)  $n + 13 - 5$

20)  $18z + 10y + 3z - y$



## Combining Like Terms

**Simplify each expression.**

1)  $-6k + 7k$

2)  $12r - 8 - 12$

3)  $n - 10 + 9n - 3$

4)  $-4x - 10x$

5)  $-r - 10r$

6)  $-2x + 11 + 6x$

7)  $11r - 12r$

8)  $-v + 12v$

9)  $-8x - 11x$

10)  $4p + 2p$

11)  $5n + 11n$

12)  $n + 4 - 9 - 5n$

13)  $12r + 5 + 3r - 5$

14)  $-5 + 9n + 6$