

## Worksheet 1 – Whole Numbers and Finding the LCD

Perform the operation given.

1.  $83 + 49 =$

2.  $621 - 137 =$

3.  $265 \times 76 =$

4.  $36 + 653 + 7 =$

5.  $276 \div 12 =$

6.  $863,145 \div 9 =$

Find the lowest common denominator for each pair of fractions.

7.  $\frac{1}{8} \& \frac{1}{12}$

8.  $\frac{1}{6} \& \frac{1}{15}$

9.  $\frac{1}{12} \& \frac{1}{15}$

10.  $\frac{1}{5} \& \frac{1}{7}$

11.  $\frac{1}{4} \& \frac{1}{16}$

12.  $\frac{1}{14} \& \frac{1}{21}$

13. The Davidson Bakery starts the day with 750 loaves of day-old bread. They sell 465 and have to throw away 20. How many are left at the end of the day?

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14. On a staircase every 6th step is painted blue and every 4<sup>th</sup> step is striped. What is the first step that is painted blue and striped?

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## Worksheet 2 – Fractions

1. Write the fraction that stands for 5 parts out of 8. \_\_\_\_\_

2. Write  $3 \div 5$  as a fraction. \_\_\_\_\_

3. Write four-fifths as a fraction. \_\_\_\_\_

Factor each of the following into primes.

4.  $34 =$

5.  $132 =$

6.  $84 =$

Reduce each of the following fractions.

7.  $\frac{14}{21} =$

8.  $\frac{24}{36} =$

9.  $\frac{18}{45} =$

Fill in the blank to make the equation true.

10.  $\frac{3}{10} = \frac{\quad}{50}$

11.  $\frac{8}{9} = \frac{\quad}{54}$

## Worksheet 3 – Adding and Subtracting Fractions

Evaluate.

1.  $\frac{1}{8} + \frac{3}{8} =$

2.  $\frac{4}{25} + \frac{2}{25} =$

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

4.  $\frac{3}{4} + \frac{1}{8} =$

5.  $\frac{1}{6} + \frac{4}{9} =$

6.  $\frac{3}{8} + \frac{5}{12} =$

$$7. \quad \frac{1}{3} + \frac{2}{5} =$$

$$8. \quad \frac{5}{21} + \frac{3}{14} =$$

$$9. \quad \frac{12}{25} - \frac{8}{25} =$$

$$10. \quad \frac{7}{10} - \frac{1}{5} =$$

$$11. \quad \frac{5}{27} - \frac{4}{45} =$$

$$12. \quad \frac{13}{16} - \frac{1}{4} - \frac{1}{8} =$$

## Worksheet 4 – Multiplication and Division of Fractions

Multiply each of the following.

1.  $\frac{4}{25} \cdot \frac{15}{8} =$

2.  $\frac{6}{35} \cdot \frac{28}{16} =$

3.  $\frac{25}{35} \cdot \frac{14}{20} =$

4.  $\frac{6}{45} \cdot \frac{35}{8} =$

5.  $\frac{21}{32} \cdot \frac{24}{49} =$

6.  $\frac{33}{9} \cdot \frac{15}{55} =$

7.  $\frac{16}{21} \cdot \frac{14}{32} =$

Divide each of the following.

8.  $\frac{3}{4} \div \frac{9}{10} =$

9.  $\frac{15}{21} \div \frac{3}{7} =$

10.  $\frac{14}{45} \div \frac{18}{35} =$

11.  $\frac{16}{29} \div \frac{16}{29} =$

12.  $\frac{18}{19} \div 2 =$

13.  $\frac{18}{19} \div \frac{1}{2} =$

14.  $8 \div 4 =$

15.  $8 \div \frac{1}{4} =$

## Worksheet 5 – Mixed Numbers

Write each of the following as an improper fraction.

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

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

3.  $7\frac{1}{5} =$

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

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

6.  $4\frac{2}{5} =$

Write each of the following as mixed numbers.

7.  $\frac{37}{5} =$

8.  $\frac{43}{8} =$

9.  $\frac{31}{4} =$

10.  $\frac{27}{2} =$

Multiply each of the following. Write final answers as mixed numbers.

11.  $2\frac{4}{7} \cdot 5\frac{5}{6} =$

12.  $1\frac{1}{2} \cdot 1\frac{7}{9} =$

Divide each of the following. Write the answers as mixed numbers.

13.  $4\frac{2}{3} \div 1\frac{2}{5} =$

14.  $2\frac{3}{4} \div 1\frac{5}{6} =$

15.  $2\frac{1}{2} \div 1\frac{1}{8} =$





## Worksheet 7 - Decimals and Fractions

Write each of the following decimals as a fraction. REDUCE all fractions.

1.  $0.6 =$

2.  $0.8 =$

3.  $0.31 =$

4.  $0.83 =$

5.  $0.283 =$

6.  $0.519 =$

7.  $0.0023 =$

8.  $0.023 =$

9.  $0.537 =$

10.  $6.41 =$

11.  $58.039 =$

12.  $8.201 =$

Write each of the following fractions as a decimal.

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

14.  $\frac{51}{100} =$

15.  $\frac{7}{100} =$

16.  $\frac{31}{100} =$

17.  $\frac{321}{1000} =$

18.  $\frac{3}{1000} =$

19.  $\frac{970}{1000} =$

20.  $\frac{310}{100} =$

21.  $\frac{23}{10} =$

22.  $5\frac{23}{1000} =$

## Worksheet 8- Decimal Arithmetic

Write each of the following fractions as a decimal.

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

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

3.  $\frac{14}{5} =$

4.  $\frac{453}{4} =$

Add or subtract as indicated.

5.  $3.87 + 62 =$

6.  $5 - 1.07 =$

7.  $86.5 - 1.03 =$

8.  $7.21 + 3.1 =$

9.  $8.6 + 3 + 2.4 + .5 =$

10.  $0.005 + 1.12 =$

11.  $35.7 - 7.93 =$

12.  $2.78 + 3.1 - 4.207 =$

13.  $2.9 + 7.8 =$

14.  $7 - 4.34 =$

## Worksheet 9 – Dividing Decimals

Divide each of the following. Write your answers in decimal form.

1.  $7.14 \div 28 =$

2.  $.01575 \div .063 =$

3.  $6 \div 8 =$

4.  $3 \div 7.5 =$

5.  $3.552 \div .37 =$

6.  $6.72 \div 1.12 =$

7.  $2.385 \div 4.5 =$

8.  $3.68 \div .125 =$

9.  $25.2 \div .12 =$

10.  $.1 \div .008 =$

11.  $4.5 \div 3 =$

12.  $3.726 \div .09 =$

13. If 15 ounces of spinach cost \$1.05, how much does the spinach cost per ounce?

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## Worksheet 10 – Multiplying Decimals

Multiply each of the following.

1.  $0.083 \cdot 0.6 =$

2.  $3.07 \cdot 8 =$

3.  $58.6 \cdot 0.5 =$

4.  $85.7 \cdot 6.9 =$

5.  $38.62 \cdot 0.07 =$

6.  $29.6 \cdot 32 =$

7.  $816 \cdot 0.3 =$

8.  $98.7 \cdot 51.4 =$

9.  $3.619 \cdot 60.7 =$

10. Simplify:  $12 \div \frac{1}{3} \cdot \frac{1}{4}$

11. For a science project, Oscar, Joey and Rex are bringing their pet caterpillars. Joey's caterpillar is 3 cm long, Oscar's is 2.345 cm long. If Rex's caterpillar is 25 cm longer than Oscar's, find the difference in length between Joey's and Rex's caterpillars.



Convert each of the following to percents.

4. 0.25

5. 0.55

6. 0.06

7. 1.00

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

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

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

11.  $\frac{1}{5}$

12.  $\frac{11}{25}$

Calculate the following.

13. 50% of 46

14. 15% of 60

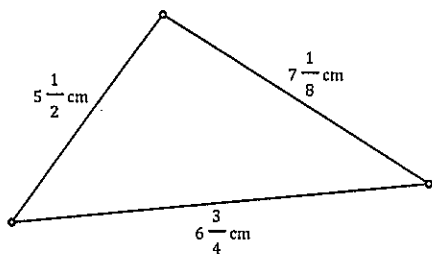
15. 25% of 80

16. 20% tip on a bill of \$80

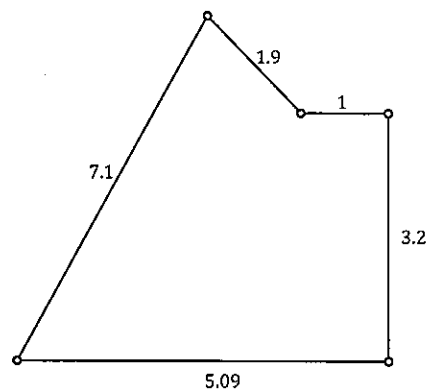
## Worksheet 12 – Perimeter and Area

Find the perimeter of each of the following.

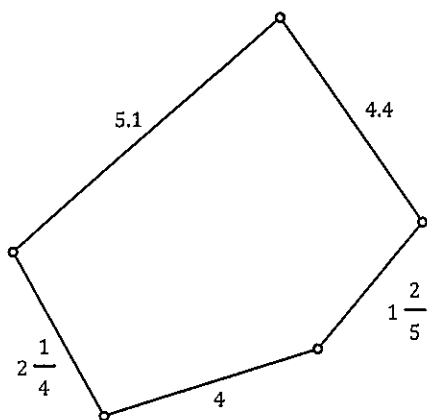
1.



2.

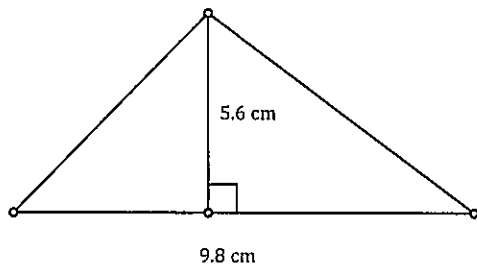


3.

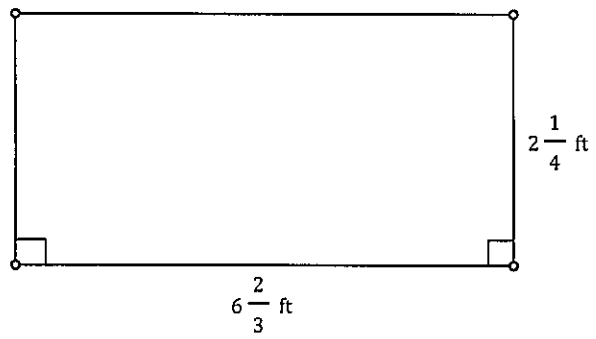


Find the area of each of the following.

4.



5.





## Worksheet 1 – Whole Numbers and Finding the LCD

Perform the operation given.

1.  $83 + 49 = 132$

$$\begin{array}{r} 83 \\ + 49 \\ \hline 132 \end{array}$$

2.  $621 - 137 = 484$

$$\begin{array}{r} 621 \\ - 137 \\ \hline 484 \end{array}$$

3.  $265 \times 76 = 20,140$

$$\begin{array}{r} 265 \\ \times 76 \\ \hline 1590 \\ + 18550 \\ \hline 20140 \end{array}$$

4.  $36 + 653 + 7 = 696$

$$\begin{array}{r} 653 \\ 36 \\ + 7 \\ \hline 696 \end{array}$$

5.  $276 \div 12 = 23$

$$\begin{array}{r} 23 \\ 12 \overline{) 276} \\ \underline{- 24} \phantom{0} \\ 36 \\ \underline{- 36} \\ 0 \end{array}$$

6.  $863,145 \div 9 = 95,905$

$$\begin{array}{r} 95905 \\ 9 \overline{) 863,145} \\ \underline{- 81} \phantom{000} \\ 53 \phantom{00} \\ \underline{- 45} \phantom{00} \\ 81 \phantom{00} \\ \underline{- 81} \phantom{00} \\ 045 \phantom{00} \\ \underline{- 45} \phantom{00} \\ 0 \end{array}$$

Find the lowest common denominator for each pair of fractions.

7.  $\frac{1}{8} \& \frac{1}{12}$

8: 8, 16, 24, 32, 40, 48,

12: 12, 24

LCD = 24

8.  $\frac{1}{6} \& \frac{1}{15}$

6: 6, 12, 18, 24, 30, 36

15: 15, 30

LCD = 30

9.  $\frac{1}{12} \& \frac{1}{15}$

12: 12, 24, 36, 48, 60, 72

15: 15, 30, 45, 60

LCD = 60

10.  $\frac{1}{5} \& \frac{1}{7}$

5: 5, 10, 15, 20, 25, 30, 35, 40

7: 7, 14, 21, 28, 35

LCD = 35

11.  $\frac{1}{4} \& \frac{1}{16}$

4: 4, 8, 12, 16, 20

16: 16

LCD = 16

12.  $\frac{1}{14} \& \frac{1}{21}$

14: 14, 28, 42, 56

21: 21, 42

LCD = 42

13. The Davidson Bakery starts the day with 750 loaves of day-old bread. They sell 465 and have to throw away 20. How many are left at the end of the day?

$$\begin{array}{r}
 61410 \\
 \cancel{7}50 \\
 -465 \\
 \hline
 285 \\
 -20 \\
 \hline
 265
 \end{array}$$

265 loaves

14. On a staircase every 6th step is painted blue and every 4<sup>th</sup> step is striped. What is the first step that is painted blue and striped?

Blue: 6, 12, 18, 24

Striped: 4, 8, 12

The 12<sup>th</sup> step

## Worksheet 2 – Fractions

1. Write the fraction that stands for 5 parts out of 8.  $\frac{5}{8}$
2. Write  $3 \div 5$  as a fraction.  $\frac{3}{5}$
3. Write four-fifths as a fraction.  $\frac{4}{5}$

Factor each of the following into primes.

4.  $34 = 2 \cdot 17$

5.  $132 = 2 \cdot 2 \cdot 3 \cdot 11$

$$\begin{array}{c}
 \wedge \\
 2 \quad 66 \\
 \wedge \\
 2 \quad 33 \\
 \wedge \\
 3 \quad 11
 \end{array}$$

6.  $84 = 2 \cdot 2 \cdot 3 \cdot 7$

$$\begin{array}{c}
 \wedge \\
 2 \quad 42 \\
 \wedge \\
 6 \quad 7 \\
 \wedge \\
 2 \quad 3
 \end{array}$$

Reduce each of the following fractions.

7.  $\frac{14}{21} = \frac{2}{3}$

8.  $\frac{24}{36} = \frac{2}{3}$

9.  $\frac{18}{45} = \frac{2}{9}$

Fill in the blank to make the equation true.

10.  $\frac{3}{10} = \frac{15}{50}$

*(Handwritten: x5 above 3 to 15, x5 below 10 to 50)*

11.  $\frac{8}{9} = \frac{48}{54}$

*(Handwritten: x6 above 8 to 48, x6 below 9 to 54)*

## Worksheet 3 – Adding and Subtracting Fractions

Evaluate.

$$1. \quad \frac{1}{8} + \frac{3}{8} = \frac{4}{8} = \frac{1}{2}$$

$$2. \quad \frac{4}{25} + \frac{2}{25} = \frac{6}{25}$$

$$3. \quad \frac{1}{15} + \frac{3}{5} = \frac{2}{3}$$

$$\frac{1}{15} + \frac{9}{15} = \frac{10}{15} = \frac{2}{3}$$

$$4. \quad \frac{3}{4} + \frac{1}{8} = \frac{7}{8}$$

$$\frac{6}{8} + \frac{1}{8} = \frac{7}{8}$$

$$5. \quad \frac{1}{6} + \frac{4}{9} = \frac{11}{18}$$

$$\frac{3}{18} + \frac{8}{18} = \frac{11}{18}$$

$$6. \quad \frac{3}{8} + \frac{5}{12} = \frac{19}{24}$$

$$\frac{9}{24} + \frac{10}{24} = \frac{19}{24}$$

$$7. \quad \frac{1}{3} + \frac{2}{5} = \frac{11}{15}$$

$$\frac{5}{15} + \frac{6}{15} = \frac{11}{15}$$

$$8. \quad \frac{5}{21} + \frac{3}{14} = \frac{19}{42}$$

$$\frac{10}{42} + \frac{9}{42} = \frac{19}{42}$$

$$9. \quad \frac{12}{25} - \frac{8}{25} = \frac{4}{25}$$

$$10. \quad \frac{7}{10} - \frac{1}{5} = \frac{1}{2}$$

$$\frac{7}{10} - \frac{2}{10} = \frac{5}{10} = \frac{1}{2}$$

$$11. \quad \frac{5}{27} - \frac{4}{45} = \frac{13}{135}$$

$$12. \quad \frac{13}{16} - \frac{1}{4} - \frac{1}{8} = \frac{7}{16}$$

LCD

$$\begin{array}{l} 27: 3 \cdot 3 \cdot 3 \\ 45: 3 \cdot 3 \cdot 5 \end{array} \left. \vphantom{\begin{array}{l} 27 \\ 45 \end{array}} \right\} 3 \cdot 3 \cdot 3 \cdot 5 = 135$$

$$\frac{25}{135} - \frac{12}{135} = \frac{13}{135}$$

$$\frac{13}{16} - \frac{4}{16} - \frac{2}{16} = \frac{7}{16}$$

## Worksheet 4 – Multiplication and Division of Fractions

Multiply each of the following.

$$1. \quad \frac{\overset{1}{\cancel{4}}}{\underset{5}{\cancel{25}}} \cdot \frac{\overset{3}{\cancel{15}}}{\underset{2}{\cancel{8}}} = \frac{3}{10}$$

$$2. \quad \frac{\overset{3}{\cancel{6}}}{\underset{5}{\cancel{35}}} \cdot \frac{\overset{4}{\cancel{28}}}{\underset{8}{\cancel{16}}} = \frac{12}{40} = \frac{3}{10}$$

$$3. \quad \frac{\overset{5}{\cancel{25}}}{\underset{5}{\cancel{35}}} \cdot \frac{\overset{2}{\cancel{14}}}{\underset{4}{\cancel{20}}} = \frac{10}{20} = \frac{1}{2}$$

$$4. \quad \frac{\overset{3}{\cancel{6}}}{\underset{9}{\cancel{45}}} \cdot \frac{\overset{7}{\cancel{35}}}{\underset{4}{\cancel{8}}} = \frac{21}{36} = \frac{7}{12}$$

$$5. \quad \frac{\overset{3}{\cancel{21}}}{\underset{4}{\cancel{32}}} \cdot \frac{\overset{3}{\cancel{24}}}{\underset{7}{\cancel{49}}} = \frac{9}{28}$$

$$6. \quad \frac{\overset{3}{\cancel{33}}}{\underset{3}{\cancel{9}}} \cdot \frac{\overset{5}{\cancel{15}}}{\underset{5}{\cancel{55}}} = \frac{15}{15} = 1$$

$$7. \quad \frac{\overset{1}{\cancel{16}}}{\underset{3}{\cancel{24}}} \cdot \frac{\overset{2}{\cancel{14}}}{\underset{2}{\cancel{32}}} = \frac{2}{6} = \frac{1}{3}$$

Divide each of the following.

8.  $\frac{3}{4} \div \frac{9}{10} =$

$$\frac{\overset{1}{\cancel{3}}}{\underset{2}{\cancel{4}}} \cdot \frac{\overset{5}{\cancel{10}}}{\underset{3}{\cancel{9}}} = \frac{5}{6}$$

9.  $\frac{15}{21} \div \frac{3}{7} =$

$$\overset{5}{\cancel{15}} \cdot \frac{\overset{1}{\cancel{7}}}{\underset{3}{\cancel{21}}} = \frac{5}{3}$$

10.  $\frac{14}{45} \div \frac{18}{35} =$

$$\overset{7}{\cancel{14}} \cdot \frac{\overset{7}{\cancel{35}}}{\underset{9}{\cancel{45}} \cdot \underset{9}{\cancel{18}}} = \frac{49}{81}$$

11.  $\frac{16}{29} \div \frac{16}{29} =$

$$\overset{1}{\cancel{16}} \cdot \frac{\overset{1}{\cancel{29}}}{\underset{1}{\cancel{29}} \cdot \underset{1}{\cancel{16}}} = 1$$

12.  $\frac{18}{19} \div 2 =$

$$\overset{9}{\cancel{18}} \cdot \frac{\overset{1}{\cancel{1}}}{\underset{1}{\cancel{2}}} = \frac{9}{19}$$

13.  $\frac{18}{19} \div \frac{1}{2} =$

$$\frac{18}{19} \cdot \frac{2}{1} = \frac{36}{19}$$

14.  $8 \div 4 =$

$$\overset{2}{\cancel{8}} \cdot \frac{\overset{1}{\cancel{1}}}{\underset{1}{\cancel{4}}} = 2$$

15.  $8 \div \frac{1}{4} =$

$$\frac{8}{1} \cdot \frac{4}{1} = 32$$

## Worksheet 5 – Mixed Numbers

Write each of the following as an improper fraction.

1.  $3\frac{2}{5} = \frac{17}{5}$

2.  $4\frac{2}{3} = \frac{14}{3}$

3.  $7\frac{1}{5} = \frac{36}{5}$

4.  $3\frac{2}{3} = \frac{11}{3}$

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

6.  $4\frac{2}{5} = \frac{22}{5}$

Write each of the following as mixed numbers.

7.  $\frac{37}{5} = 7\frac{2}{5}$

8.  $\frac{43}{8} = 5\frac{3}{8}$

9.  $\frac{31}{4} = 7\frac{3}{4}$

10.  $\frac{27}{2} = 13\frac{1}{2}$

Multiply each of the following. Write final answers as mixed numbers.

11.  $2\frac{4}{7} \cdot 5\frac{5}{6} =$

$$^3 \frac{\cancel{18}}{\cancel{1} \cancel{7}} \cdot \frac{\cancel{5} \cancel{35}}{\cancel{6} \cancel{1}} = 15$$

12.  $1\frac{1}{2} \cdot 1\frac{7}{9} =$

$$\frac{\cancel{1} \cancel{8}}{\cancel{2} \cancel{1}} \cdot \frac{\cancel{1} \cancel{6} \cancel{8}}{\cancel{9} \cancel{3}} = \frac{8}{3} = 2\frac{2}{3}$$

Divide each of the following. Write the answers as mixed numbers.

13.  $4\frac{2}{3} \div 1\frac{2}{5} =$

$$\frac{14}{3} \div \frac{7}{5}$$

$$^2 \frac{\cancel{14}}{3} \cdot \frac{5}{\cancel{7}} = \frac{10}{3} = 3\frac{1}{3}$$

14.  $2\frac{3}{4} \div 1\frac{5}{6} =$

$$\frac{11}{4} \div \frac{11}{6}$$

$$\frac{\cancel{11}}{\cancel{4}} \cdot \frac{\cancel{6}}{\cancel{11}} = \frac{3}{2} = 1\frac{1}{2}$$

15.  $2\frac{1}{2} \div 1\frac{1}{8} =$

$$\frac{5}{2} \div \frac{9}{8}$$

$$\frac{5}{\cancel{2}} \cdot \frac{\cancel{8}^4}{9} = \frac{20}{9} = 2\frac{2}{9}$$

## Worksheet 6 – Fraction Word Problems

1. If you attend school for 8 hours out of 24 hours, what fraction of the day are you at school?

$$\frac{8}{24} = \frac{1}{3} \quad \text{You are at school for } \frac{1}{3} \text{ of the day.}$$

2. Jenny bought  $\frac{1}{4}$  th of a pound of Jolly Ranchers. If each pound of Jolly Ranchers cost \$10 per pound, how much did Jenny pay for her Jolly Ranchers?

$$\frac{\frac{1}{4}}{2} \cdot \frac{10^5}{1} = \frac{5}{2} = 2 \frac{1}{2}$$

Jenny paid \$2.50

3. Katie was really hungry! She ordered a large 8-slice pizza for dinner and ate  $\frac{3}{4}$  of it. The next day, Katie ate  $\frac{1}{2}$  of what was left for lunch. What fraction of the whole pizza was left after Katie was done eating?

$$\frac{3}{4} \cdot \frac{8^2}{1} = 6 \text{ slices} \quad \text{She ate 6 slices, so 2 were left.}$$

$$\frac{1}{2} \cdot \frac{2^1}{1} = 1 \text{ slice.} \quad \text{There was 1 slice left.}$$

4. Mary Jane needed  $\frac{5}{8}$  of a cup of sugar to make her cookies. She had  $\frac{3}{5}$  of a cup in the cupboard. How much more does she need?

$$\frac{5}{8} - \frac{3}{5}$$

$$\frac{25}{40} - \frac{24}{40} = \frac{1}{40}$$

Mary Jane needed  $\frac{1}{40}$  of a cup of flour.

5. One day  $\frac{5}{9}$  of the girls wore braids to class. If the class had 27 girls, how many girls did NOT wear braids to class?

$$\frac{5}{9} \cdot \frac{27}{1} = 15 \text{ girls wore braids}$$

$$27 - 15 = 12 \text{ girls did not wear braids}$$

6. What is half of half of half of 8?

$$\frac{1}{2} \cdot \frac{1}{2} \cdot \frac{1}{2} \cdot \frac{8}{1} = \frac{8}{8} = 1$$

7. A football team must move the ball 10 yards in four plays to keep possession of the ball. The home team (rah! rah!) ran a play and gained .95 yards. How many yards must they move the ball to maintain possession?

$$\begin{array}{r} 10.00 \\ - .95 \\ \hline 9.05 \end{array}$$

They must move the ball 9.05 yards.

## Worksheet 7 - Decimals and Fractions

Write each of the following decimals as a fraction. REDUCE all fractions.

1.  $0.6 = \frac{6}{10} = \frac{3}{5}$

2.  $0.8 = \frac{8}{10} = \frac{4}{5}$

3.  $0.31 = \frac{31}{100}$

4.  $0.83 = \frac{83}{100}$

5.  $0.283 = \frac{283}{1000}$

6.  $0.519 = \frac{519}{1000}$

7.  $0.0023 = \frac{23}{10,000}$

8.  $0.023 = \frac{23}{1000}$

9.  $0.537 = \frac{537}{1000}$

10.  $6.41 = 6 \frac{41}{100}$

11.  $58.039 = 58 \frac{39}{1000}$

12.  $8.201 = 8 \frac{201}{1000}$

Write each of the following fractions as a decimal.

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

14.  $\frac{51}{100} = .51$

15.  $\frac{7}{100} = .07$

16.  $\frac{31}{100} = .31$

17.  $\frac{321}{1000} = .321$

18.  $\frac{3}{1000} = .003$

19.  $\frac{970}{1000} = .970$

20.  $\frac{310}{100} = 3.10$

21.  $\frac{23}{10} = 2.3$

22.  $5 \frac{23}{1000} = 5.023$

## Worksheet 8- Decimal Arithmetic

Write each of the following fractions as a decimal.

1.  $\frac{5}{8} = .625$

$$\begin{array}{r} .625 \\ 8 \overline{) 5.000} \\ \underline{-48} \phantom{00} \\ 20 \phantom{00} \\ \underline{-16} \phantom{00} \\ 40 \phantom{00} \\ \underline{-40} \phantom{00} \\ 0 \end{array}$$

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

$$\begin{array}{r} .222 \\ 9 \overline{) 2.000} \\ \underline{-18} \phantom{00} \\ 20 \phantom{00} \\ \underline{-18} \phantom{00} \\ 20 \phantom{00} \\ \underline{-18} \phantom{00} \\ 2 \end{array}$$

3.  $\frac{14}{5} = 2.8$

$$\begin{array}{r} 2.8 \\ 5 \overline{) 14.0} \\ \underline{-10} \phantom{00} \\ 40 \phantom{00} \\ \underline{-40} \phantom{00} \\ 0 \end{array}$$

4.  $\frac{453}{4} = 113.25$

$$\begin{array}{r} 113.25 \\ 4 \overline{) 453.00} \\ \underline{-4} \phantom{00} \\ 5 \phantom{00} \\ \underline{4} \phantom{00} \\ 13 \phantom{00} \\ \underline{12} \phantom{00} \\ 10 \phantom{00} \\ \underline{-8} \phantom{00} \\ 20 \phantom{00} \\ \underline{-20} \phantom{00} \\ 0 \end{array}$$

Add or subtract as indicated.

5.  $3.87 + 62 = 65.87$

$$\begin{array}{r} 62.00 \\ + 3.87 \\ \hline 65.87 \end{array}$$

6.  $5 - 1.07 = 3.93$

$$\begin{array}{r} 4 \overset{9}{\cancel{5}} \overset{10}{\cancel{0}} \overset{10}{\cancel{0}} \\ - 1.07 \\ \hline 3.93 \end{array}$$

7.  $86.5 - 1.03 = 85.47$

$$\begin{array}{r} 86.50 \\ - 1.03 \\ \hline 85.47 \end{array}$$

8.  $7.21 + 3.1 = 10.31$

$$\begin{array}{r} 7.21 \\ + 3.10 \\ \hline 10.31 \end{array}$$

9.  $8.6 + 3 + 2.4 + .5 = 14.5$

$$\begin{array}{r} 8.6 \\ 3.0 \\ 2.4 \\ + 0.5 \\ \hline 14.5 \end{array}$$

10.  $0.005 + 1.12 = 1.125$

$$\begin{array}{r} 0.005 \\ + 1.120 \\ \hline 1.125 \end{array}$$

11.  $35.7 - 7.93 = 27.77$

$$\begin{array}{r} 35.70 \\ - 7.93 \\ \hline 27.77 \end{array}$$

12.  $2.78 + 3.1 - 4.207 = 1.673$

$$\begin{array}{r} 2.78 \\ + 3.10 \\ \hline 5.88 \end{array} \quad \begin{array}{r} 5.88 \\ - 4.207 \\ \hline 1.673 \end{array}$$

13.  $2.9 + 7.8 = 10.7$

$$\begin{array}{r} 2.9 \\ + 7.8 \\ \hline 10.7 \end{array}$$

14.  $7 - 4.34 = 2.66$

$$\begin{array}{r} 7.00 \\ - 4.34 \\ \hline 2.66 \end{array}$$

## Worksheet 9 – Dividing Decimals

Divide each of the following. Write your answers in decimal form.

1.  $7.14 \div 28 = .255$

$$\begin{array}{r}
 .255 \\
 28 \overline{) 7.1400} \\
 \underline{-56} \phantom{00} \\
 154 \phantom{00} \\
 \underline{-140} \phantom{00} \\
 140 \phantom{00} \\
 \underline{-140} \phantom{00} \\
 0
 \end{array}$$

2.  $.01575 \div .063 = .25$

$$\begin{array}{r}
 .25 \\
 .063 \overline{) .01575} \\
 \underline{.0126} \phantom{00} \\
 .00315 \phantom{00} \\
 \underline{.00315} \phantom{00} \\
 0
 \end{array}$$

3.  $6 \div 8 = .75$

$$\begin{array}{r}
 .75 \\
 8 \overline{) 6.00} \\
 \underline{-56} \phantom{00} \\
 40 \phantom{00} \\
 \underline{-40} \phantom{00} \\
 0
 \end{array}$$

4.  $3 \div 7.5 = .4$

$$\begin{array}{r}
 .4 \\
 7.5 \overline{) 3.0} \\
 \underline{3.0} \phantom{00} \\
 0
 \end{array}$$

5.  $3.552 \div .37 = 9.6$

$$\begin{array}{r}
 9.6 \\
 .37 \overline{) 3.552} \\
 \underline{3.33} \phantom{00} \\
 222 \phantom{00} \\
 \underline{-222} \phantom{00} \\
 0
 \end{array}$$

6.  $6.72 \div 1.12 = 6$

$$\begin{array}{r}
 6 \\
 1.12 \overline{) 6.72} \\
 \underline{6.72} \phantom{00} \\
 0
 \end{array}$$

7.  $2.385 \div 4.5 = .53$

$$\begin{array}{r}
 4.5 \overline{) 2.385} \\
 \underline{.53} \\
 45 \overline{) 23.85} \\
 \underline{- 225} \\
 135 \\
 \underline{- 135} \\
 0
 \end{array}$$

8.  $3.68 \div .125 = 29.44$

$$\begin{array}{r}
 .125 \overline{) 3.680} \\
 \underline{29.44} \\
 125 \overline{) 3680.00} \\
 \underline{- 250} \\
 1180 \\
 \underline{- 1125} \\
 550 \\
 \underline{- 500} \\
 500 \\
 \underline{- 500} \\
 0
 \end{array}$$

9.  $25.2 \div .12 = 210$

$$\begin{array}{r}
 .12 \overline{) 25.20} \\
 \underline{210} \\
 12 \overline{) 2520} \\
 \underline{- 24} \\
 12 \\
 \underline{12} \\
 00
 \end{array}$$

10.  $.1 \div .008 = 12.5$

$$\begin{array}{r}
 .008 \overline{) .100} \\
 \underline{12.5} \\
 8 \overline{) 100.0} \\
 \underline{- 8} \\
 20 \\
 \underline{- 16} \\
 40 \\
 \underline{- 40} \\
 0
 \end{array}$$

11.  $4.5 \div 3 = 1.5$

$$\begin{array}{r}
 1.5 \\
 3 \overline{) 4.5} \\
 \underline{- 3} \\
 15 \\
 \underline{- 15} \\
 0
 \end{array}$$

12.  $3.726 \div .09 = 41.4$

$$\begin{array}{r}
 .09 \overline{) 3.726} \\
 \underline{41.4} \\
 9 \overline{) 372.6} \\
 \underline{- 36} \\
 12 \\
 \underline{- 9} \\
 36 \\
 \underline{- 36} \\
 0
 \end{array}$$

13. If 15 ounces of spinach cost \$1.05, how much does the spinach cost per ounce?

$$\begin{array}{r}
 .07 \\
 15 \overline{) 1.05} \\
 \underline{- 1.05} \\
 0
 \end{array}$$

7¢ per ounce

## Worksheet 10 – Multiplying Decimals

Multiply each of the following.

1.  $0.083 \cdot 0.6 = .0498$

$$\begin{array}{r} \overset{4}{.} \overset{1}{0}83 \\ \cdot .6 \\ \hline .0498 \end{array}$$

2.  $3.07 \cdot 8 = 24.56$

$$\begin{array}{r} 3.07 \\ \cdot 8 \\ \hline 24.56 \end{array}$$

3.  $58.6 \cdot 0.5 = 29.30$

$$\begin{array}{r} \overset{4}{5}8.\overset{3}{6} \\ \cdot .5 \\ \hline 29.30 \end{array}$$

4.  $85.7 \cdot 6.9 = 591.33$

$$\begin{array}{r} \overset{5}{8}5.\overset{4}{7} \\ \cdot \overset{3}{6}.\overset{1}{9} \\ \hline 7713 \\ 51420 \\ \hline 59133 \end{array}$$

5.  $38.62 \cdot 0.07 = 2.7304$

$$\begin{array}{r} \overset{6}{3}8.\overset{4}{6}2 \\ \cdot .07 \\ \hline 27034 \end{array}$$

6.  $29.6 \cdot 32 = 947.2$

$$\begin{array}{r} \overset{2}{2}9.\overset{1}{6} \\ \cdot 32 \\ \hline 592 \\ 8880 \\ \hline 9472 \end{array}$$

7.  $816 \cdot 0.3 = 244.8$

$$\begin{array}{r} 816 \\ \times .3 \\ \hline 244.8 \end{array}$$

8.  $98.7 \cdot 51.4 = 5073.18$

$$\begin{array}{r} 98.7 \\ \times 51.4 \\ \hline 3948 \\ 9870 \\ 493500 \\ \hline 5073.18 \end{array}$$

9.  $3.619 \cdot 60.7 = 219.6733$

$$\begin{array}{r} 3.619 \\ \times 60.7 \\ \hline 25333 \\ 00000 \\ 2171400 \\ \hline 219.6733 \end{array}$$

10. Simplify:  $12 \div \frac{1}{3} \cdot \frac{1}{4}$

$$\frac{3\cancel{12}}{1} \cdot \frac{3}{1} \cdot \frac{1}{\cancel{4}} = 9$$

11. For a science project, Oscar, Joey and Rex are bringing their pet caterpillars. Joey's caterpillar is 3 cm long, Oscar's is 2.345 cm long. If Rex's caterpillar is 25 cm longer than Oscar's, find the difference in length between Joey's and Rex's caterpillars.

$$\begin{array}{r} \text{Rex: } 25.000 \\ + 2.345 \\ \hline 27.345 \end{array}$$

$$\begin{array}{r} 27.345 \\ - 3.000 \\ \hline 24.345 \end{array}$$

Rex's caterpillar is 24.345 cm longer than Joey's.

## Worksheet 11 – Ratio and Percent

Solve the following.

1. The ratio of girls with pigtails to girls with pony-tails is 3 to 5. If there are 25 girls wearing pony-tails, how many are wearing pigtails?

$\text{pig: pony}$     $\text{pig: pony}$    15 girls are wearing pigtails  
 $3:5 = \underline{\quad}: 25$   
 $5 \cdot 5 = 25$   
 $3 \cdot 5 = 15$

2. The ratio of boys to girls at a dance is 3 to 2. If there were 45 boys at the dance, how many girls were there?

$\text{boys: girls}$     $\text{boys: girls}$    There were 30 girls at the dance.  
 $3:2 = 45:\underline{\quad}$   
 $3 \cdot 15 = 45$   
 $2 \cdot 15 = 30$

3. The ratio of eggs to sugar in a cookie recipe is 2 eggs to  $\frac{1}{2}$  cup of sugar. If the recipe uses 6 eggs, how many cups of sugar were used?

$\text{eggs: sugar}$   
 $2:\frac{1}{2} = 6:\underline{\quad}$   
 $2 \cdot 3 = 6$     $\frac{3}{2}$  cups of sugar were used.  
 $\frac{1}{2} \cdot 3 = \frac{3}{2}$

Convert each of the following to percents.

4.  $0.25$   $25\%$

5.  $0.55$   $55\%$

6.  $0.06$   $6\%$

7.  $1.00$   $100\%$

8.  $\frac{1}{2}$   $50\%$

9.  $\frac{3}{4}$   $75\%$

10.  $\frac{3}{10}$   $30\%$

11.  $\frac{1}{5}$   $20\%$

12.  $\frac{11}{25}$   $44\%$

Calculate the following.

13. 50% of 46

$$\frac{\frac{50}{100} \cdot \frac{46}{1}}{\frac{1}{2} \cdot \frac{46}{1}} = 23$$

14. 15% of 60

$$\frac{\frac{15}{100} \cdot \frac{60}{1}}{\frac{3}{20} \cdot \frac{60}{1}} = 9$$

15. 25% of 80

$$\frac{\frac{25}{100} \cdot \frac{80}{1}}{\frac{1}{4} \cdot \frac{80}{1}} = 20$$

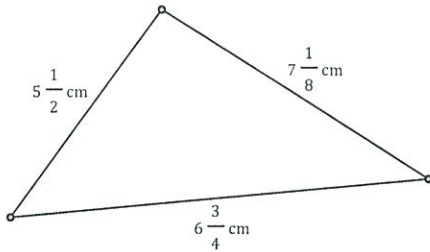
16. 20% tip on a bill of \$80

$$\frac{\frac{20}{100} \cdot \frac{80}{1}}{\frac{1}{5} \cdot \frac{80}{1}} = \$16$$

## Worksheet 12 – Perimeter and Area

Find the perimeter of each of the following.

1.

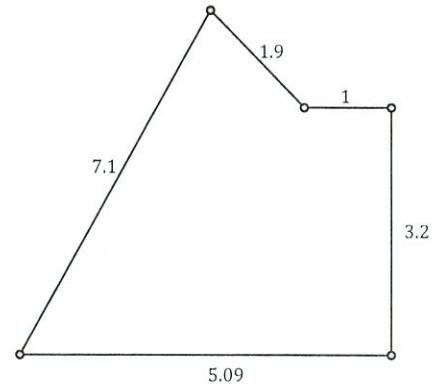


$$P = 5\frac{1}{2} + 6\frac{3}{4} + 7\frac{1}{8}$$

$$P = 5\frac{4}{8} + 6\frac{6}{8} + 7\frac{1}{8}$$

$$P = 18\frac{11}{8} = 19\frac{3}{8} \text{ cm}$$

2.

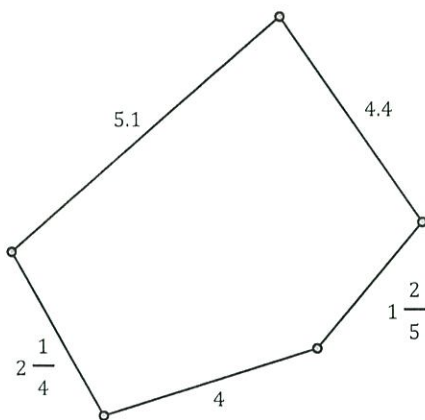


$$P = 7.1 + 1.9 + 1 + 3.2 + 5.09$$

$$\begin{array}{r}
 7.1 \\
 1.9 \\
 1.0 \\
 3.2 \\
 + 5.09 \\
 \hline
 18.29
 \end{array}$$

$P = 18.29$

3.



$$P = 5.1 + 4.4 + 1\frac{2}{5} + 4 + 2\frac{1}{4}$$

$$P = 5\frac{1}{10} + 4\frac{4}{10} + 1\frac{4}{10} + 4 + 2\frac{1}{4}$$

$$P = 10\frac{9}{10} + 6\frac{1}{4}$$

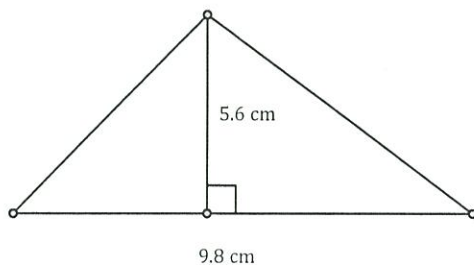
$$P = 10\frac{18}{20} + 6\frac{5}{20}$$

$$P = 16\frac{23}{20}$$

$$P = 17\frac{3}{20}$$

Find the area of each of the following.

4.



$$A = \frac{1}{2} (9.8)(5.6)$$

$$A = .5 \cdot 9.8 \cdot 5.6$$

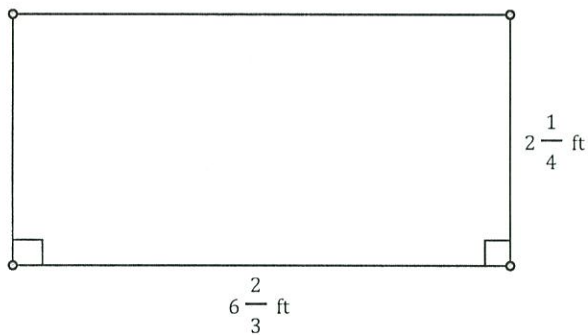
$$A = 4.9 \cdot 5.6$$

$$A = 27.44 \text{ cm}^2$$

$$\begin{array}{r} 4 \\ 9.8 \\ \cdot 5 \\ \hline 490 \end{array}$$

$$\begin{array}{r} 54 \\ 4.9 \\ 5.6 \\ \hline 294 \\ 2450 \\ \hline 2744 \end{array}$$

5.



$$A = 6\frac{2}{3} \cdot 2\frac{1}{4}$$

$$A = \frac{20}{3} \cdot \frac{9}{4}$$

$$A = 15 \text{ ft}^2$$

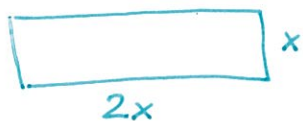
6. If the area of a square is 25 square centimeters, what is the perimeter?

$$\begin{array}{cc} \boxed{25} \times & x = 5 \\ x & \\ & P = 20 \text{ cm} \end{array}$$

7. If the width of a rectangle is 4 in and the perimeter of the rectangle is 20 in, what is the length of the rectangle?

$$\begin{array}{ccc} & x & \\ 4 & \boxed{\phantom{00}} & 4 \\ & x & \end{array} \quad 20 - 8 = 12 \div 2 = 6 \text{ in}$$

8. If the base of a rectangle is twice as long and the height, and the area is 18 square feet, what are the lengths of the base and height?



$$\begin{array}{cc} \boxed{\phantom{00}} & 1 \\ 2 & \end{array} \quad \text{Area} = 2$$

$$\begin{array}{cc} \boxed{\phantom{00}} & 2 \\ 4 & \end{array} \quad \text{Area} = 8$$

$$\begin{array}{cc} \boxed{\phantom{00}} & 3 \\ 6 & \end{array} \quad \text{Area} = 18$$

The length is 6 ft  
and the width is 3 ft.