



Name: _____

Date: _____

Period: _____

Basic Skills Review

Part 1 – Adding & Subtracting Fractions

Part 2 – Adding & Subtracting Decimal Fractions

Part 3 – Multiplying & Dividing Fractions & Mixed Numbers

Part 4 – Multiplying & Dividing Decimal Fractions

one millions
hundred thousands
ten thousands
one thousands
hundreds
tens
ones
tenths
hundredths
thousandths
ten thousandths
hundred thousandths
millionths

9 , 6 0 5 , 8 7 2 . 1 4 5 6 7 3

Part 1 – Adding and Subtracting Fractions

To add or subtract fractions you must convert each fraction to a _____.

Example 1: $\frac{2}{5} + \frac{1}{3}$

$$\begin{array}{r} \frac{2}{5} \rightarrow \frac{\quad}{15} \\ + \frac{1}{3} \rightarrow + \frac{\quad}{15} \\ \hline \end{array}$$

$$\boxed{\frac{\quad}{15}}$$

Example 2: $\frac{7}{8} + \frac{1}{2}$

$$\begin{array}{r} \frac{7}{8} \rightarrow \frac{\quad}{8} \\ + \frac{1}{2} \rightarrow + \frac{\quad}{8} \\ \hline \end{array}$$

$$\boxed{\frac{\quad}{8} = 1\frac{\quad}{8}}$$

Example 3: $4\frac{3}{4} - 1\frac{5}{6}$

$$4\frac{3}{4} \rightarrow 4\frac{9}{12} + \frac{12}{12} = 3\frac{21}{12}$$

$$\begin{array}{r} -1\frac{5}{6} \rightarrow \quad -1\frac{\quad}{12} \\ \hline \end{array}$$

$$\boxed{2\frac{\quad}{12}}$$

Rewrite each problem vertically, show all your steps, and circle your answer.

1. $\frac{2}{3} + \frac{5}{6}$

2. $\frac{5}{8} + \frac{1}{6}$

3. $\frac{7}{12} - \frac{1}{4}$

4. $5\frac{4}{5} + 3\frac{2}{3}$

5. $10\frac{1}{6} - 5\frac{3}{4}$

6. $\frac{2}{3} + \frac{4}{5}$

7. $\frac{6}{7} - \frac{1}{3}$

8. $\frac{7}{12} + \frac{5}{9}$

9. $2\frac{3}{5} + 1\frac{3}{4}$

10. $5\frac{1}{3} - 2\frac{5}{12}$

11. $6\frac{9}{16} - 4\frac{3}{8}$

12. $10\frac{5}{6} + 5\frac{3}{4}$

Part 2 – Adding and Subtracting Decimal Fractions

To add or subtract decimal fractions, you must first line up the _____.

You may need to add zeros as place holders.

Example 1: $2.45 + 1.2$

$$\begin{array}{r} 2.45 \\ + 1.20 \\ \hline \end{array}$$

Example 2: $450 + .012$

$$\begin{array}{r} 450.000 \\ + .012 \\ \hline \end{array}$$

Example 3: $84.27 - .003$

$$\begin{array}{r} 84.270 \\ - .003 \\ \hline \end{array}$$

Example 4: $54 - 3.25$

$$\begin{array}{r} 54.00 \\ - 3.25 \\ \hline \end{array}$$

Rewrite each problem vertically, show all your steps, and circle your answer.

1. $687.4 + 25.32$

4. $34.6 - 13.75$

2. $0.58 + 43.6$

5. $64.3 + 108 + 13.04 + 0.888$

3. $25 - 9.85$

6. $16 + 1.6$

7. $47 - 4.7$

8. $3.5 - .35$

9. $2.85 - 1.9$

10. $8 + 6.25$

11. $40 - .4$

12. $85 - 9.16$

13. $40 + .625 + 8.6 + 9$

14. $7.23 - 5.1 + 6.25$

Part 3 – Multiplying and Dividing Fractions and Mixed Numbers

To multiply fractions, multiply _____ and multiply _____.

Example 1: $\frac{3}{4} \cdot \frac{1}{5} = \frac{3}{20}$

Example 2: $\frac{7}{8} \cdot \frac{4}{5} = \frac{28}{40} = \frac{\quad}{\quad}$

Example 3: $\frac{2}{3} \cdot \frac{4}{5} = \frac{\quad}{15}$

Example 4: $\frac{8^2}{9_3} \cdot \frac{3^1}{4_1} = \frac{\quad}{\quad}$

To divide fractions, multiply by the _____ of the second fraction.

Example 5: $\frac{3}{8} \div \frac{1}{4}$
 $\frac{3}{8} \cdot \frac{4^1}{1}$
 $\frac{3}{2} = 1\frac{\quad}{2}$

Example 6: $\frac{9}{10} \div \frac{3}{5}$
 $\frac{9}{10} \cdot \frac{\quad}{\quad}$
 $\frac{\quad}{\quad} = 1\frac{\quad}{\quad}$

Example 7: $\frac{4}{5} \div \frac{1}{2}$
 $\frac{4}{5} \cdot \frac{\quad}{\quad}$
 $\frac{\quad}{\quad} = 1\frac{\quad}{5}$

Example 8: $\frac{5}{6} \div \frac{3}{4}$
 $\frac{\quad}{\quad} \cdot \frac{\quad}{\quad}$
 $\frac{\quad}{\quad} = 1\frac{\quad}{\quad}$

When multiplying or dividing, first write all mixed numbers and whole numbers as _____.

Example 9: $2\frac{2}{5} \cdot 1\frac{1}{6}$
 $\frac{12^2}{5} \cdot \frac{7}{6_1}$
 $\frac{14}{5} = 2\frac{\quad}{5}$

Example 10: $4\frac{2}{3} \div 2\frac{1}{3}$
 $\frac{14}{3} \div \frac{7}{3}$
 $\frac{14}{3} \cdot \frac{\quad}{\quad}$
 $\frac{6}{3} = \frac{\quad}{\quad}$

Example 11: $5\frac{3}{5} \cdot 1\frac{1}{2}$
 $\frac{\quad}{5} \cdot \frac{3}{\quad}$
 $\frac{\quad}{\quad} = 8\frac{\quad}{\quad}$

Example 12: $6\frac{2}{3} \div 2\frac{2}{3}$
 $\frac{\quad}{3} \div \frac{\quad}{3}$
 $\frac{\quad}{3} \cdot \frac{\quad}{\quad}$
 $\frac{\quad}{\quad} = \frac{\quad}{\quad}$

Remember to show all work and circle your answers.

1. $\frac{4}{5} \cdot \frac{1}{2}$

2. $\frac{9}{10} \cdot \frac{2}{3}$

3. $\frac{5}{8} \div \frac{3}{4}$

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

5. $\frac{12}{25} \div \frac{3}{5}$

6. $5\frac{2}{5} \cdot 1\frac{1}{9}$

7. $2\frac{1}{7} \cdot 2\frac{1}{10}$

8. $1\frac{1}{5} \div 1\frac{1}{15}$

9. $\frac{2}{5} \cdot \frac{5}{8}$

10. $\frac{2}{3} \div \frac{5}{6}$

11. $\frac{20}{21} \div \frac{4}{7}$

12. $\frac{24}{25} \cdot \frac{5}{9}$

13. $4\frac{2}{5} \cdot \frac{5}{8}$

14. $5\frac{1}{3} \cdot 4$

15. $8\frac{2}{3} \div 6$

16. $2\frac{3}{4} \div 1\frac{1}{2}$

Part 4 – Multiplying and Dividing Decimal Fractions

To multiply decimal fractions you must count _____ and then place the decimal point in your answer, moving right to left.

Example 1: $2.4 \cdot 1.2$

$$\begin{array}{r} 2.4 \\ \times 1.2 \\ \hline 48 \\ + 240 \\ \hline 288 \end{array}$$

Since tenths times tenths equals hundredths, the answer will be in hundredths. Another way of looking at this is 2.4 has one decimal digit and 1.2 has one decimal digit. Therefore, the answer will have two decimal digits.

2.88

Example 2: $.125 \cdot .7$

$$\begin{array}{r} .125 \\ \times .7 \\ \hline 875 \end{array}$$

Since thousandths times tenths equals ten thousandths, the answer will be in ten thousandths. Another way of looking at this is .125 has three decimal digits and .7 has one decimal digit. Therefore, the answer will have four decimal digits.

.0875 *It is necessary to add a zero to mark the place value.

To divide decimal fractions, you must rewrite the problem so that you have a whole number divisor. You can obtain an equivalent problem by multiplying the dividend and the divisor by the same number (either 10, 100, or 1000).

Example 3: $4.26 \div 3$

Do not change the problem since the divisor is already a whole number.

$$\begin{array}{r} 1.42 \\ 3 \overline{) 4.26} \\ \underline{- 3} \\ 12 \\ \underline{- 12} \\ 06 \\ \underline{- 6} \\ 0 \end{array}$$

1.42

Example 4: $6.25 \div 0.5$

Since the divisor is not a whole number change the problem. Multiply the divisor and the dividend by 10.

$$\text{ff } 0.5 \overline{) 6.25}$$

$$\begin{array}{r} 12.5 \\ 5 \overline{) 62.5} \\ \underline{- 5} \\ 12 \\ \underline{- 10} \\ 25 \\ \underline{- 25} \\ 0 \end{array}$$

Rewrite each problem in the appropriate format, show all steps, and circle your answers.

1. $42 \cdot 0.4$

5. $2.43 \div 3$

2. $0.6 \cdot 0.3$

6. $84.24 \div 6$

3. $1.5 \cdot 0.15$

7. $43.2 \div 5$

4. $0.4 \cdot 0.2$

8. $1.45 \div 0.4$

9. $0.25 \cdot .04$

12. $42.6 \div 8$

10. $8.2 \cdot 2.5$

13. $6.25 \div 25$

11. $2.65 \cdot 1.5$

14. $1.47 \div 0.3$

