

Warm UP

1. $17.3262 \div 6.7 =$

2. $79.9145 \div 3.145$

Warm UP

1. $17.3262 \div 6.7 =$

$$\begin{array}{r} 2.5846 \\ 67 \overline{) 173.262} \\ \underline{-134} \\ 392 \\ \underline{-335} \\ 576 \\ \underline{-536} \\ 402 \\ \underline{-402} 0 \end{array}$$

2. $79.9145 \div 3.145 =$

$$\begin{array}{r} 25.41 \\ 3145 \overline{) 79914.50} \\ \underline{-6290} \\ 17014 \\ \underline{-15725} \\ 12895 \\ \underline{-12580} \\ 3150 \\ \underline{-3145} \\ 5 \end{array}$$

Daily HW Check:

Box 5: add, sub, mult, div #3 left side of sheet

Box 6: add, sub, mult, div #3 right side of sheet

Homework

Solve each problem.

- 1) $77.2 - 43.778 = \underline{33.422}$
- 2) $2.072 \div 5.6 = \underline{0.37}$
- 3) $6.811 \times 4.997 = \underline{34.034567}$
- 4) $27.001 - 7.5 = \underline{19.501}$
- 5) $4.23 \times 9 = \underline{38.07}$
- 6) $19.2 + 31.82 = \underline{51.02}$
- 7) $97.68 - 32.3 = \underline{65.38}$
- 8) $0.468 \div 6.5 = \underline{0.072}$
- 9) $0.6144 \div 1.6 = \underline{0.384}$
- 10) $4.4 \times 2.727 = \underline{11.9988}$
- 11) $20.97 + 85.62 = \underline{106.59}$

Answers

1. 33.422 to make a full size cake. If at was 0.5 the size, how much thread would she need?
2. 0.37 received 0.1 of a pound of flour. How much flour did they receive total?
3. 34.034567 book in a minute. If she read for 30 minutes, how long would she have read?
4. 19.501
5. 38.07 a scale that weighed 3.3 kg. How much would it weigh as 0.1 of the total weight?
6. 51.02
7. 65.38 10 bags of cans as her friend. How much did Janet have?
8. 0.072 liters of soap. After 2 days, how much have used?
9. 0.384
10. 11.9988 the animals are cats. Of the total amount of the animals at the farm, how many are cats?
11. 106.59 read to finish a pillow she was sewing. How much thread as she needs, if she has?
12. 106.1 is 4.77 kilograms. If George weighs 100 kg, how much would he weigh?

ANSWERS

1. 2.
2. 0.2
3. 10.948
4. 0.33
5. 3.48
6. 9.4
7. 0.4032
8. 10.8
9. 21.3696
10. 11.609

Adding and Subtracting Fractions

Real Numbers

Real

Rational

All numbers that can be written as a fraction (with integers)

Irrational

All numbers that CAN NOT be written as a fraction (with integers)

Integers

All whole numbers and their opposites. Including zero.
ex. -2, -1, 0, 1, 2 ...

Whole numbers

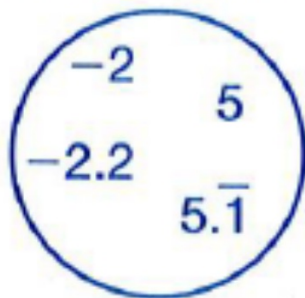
All positive numbers that have no decimals. Includes zero. ex. 0, 1, 2, 3, 4...

Counting (Natural) numbers

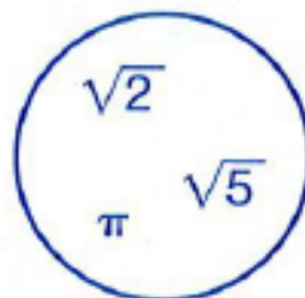
Numbers that represent things that you can count
ex. 1, 2, 3, 4, 5... Does not include zero

Set of all Real Numbers

Rational Numbers



Irrational Numbers



There are three types of fractions

Proper Fractions Example $\frac{4}{5}$

Mixed Fractions Example $2\frac{1}{8}$

Improper Fractions Example $\frac{13}{12}$

Identify the following fractions:

1. $\frac{14}{2}$

Improper

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

Mixed

3. $100\frac{1}{17}$

Mixed

4. $\frac{99}{100}$

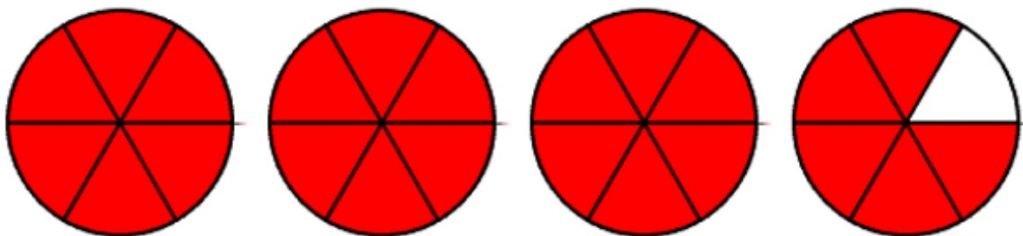
Proper

The easiest way to add and subtract fraction is to use improper fractions and proper (common) fractions ONLY!!

Mixed number Review

To change mixed numbers into improper fractions:

- Write the whole number in terms of the divisor
- Add all of the fractions together



Fraction Form to Mixed Form.

$$\frac{23}{6} = 3 \frac{5}{6}$$

Change the following into improper fractions:

1. $2\frac{1}{5} = 2 \times 5 = \frac{11}{5}$ * always keep the denominator

2. $3\frac{2}{7} = 3 \times 7 = \frac{23}{7}$

|

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

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

5. $6\frac{1}{6} = \frac{37}{6}$

Example 1: If Beth has 2 and $\frac{7}{8}$ pizzas left over and each pizza has 8 slices total,

how many slices of pizza did she save?

$$2 \times 8 + \frac{7}{8} \times 8 = \frac{23}{1}$$

Beth has 23 slices of pizza

Adding and Subtracting Fractions: To add or subtract fractions you must find the common denominator.

$$\begin{array}{r} \frac{1}{2} \\ + \frac{3}{7} \\ \hline \end{array}$$

We need a common denominator to add these fractions.

$$\begin{array}{r} \frac{1}{2} \\ + \frac{3}{7} \\ \hline \end{array}$$

We need a common denominator to add these fractions.

Count by 2's

2, 4, 6, 8, 10, 12, 14, 16, 18, 20

Count by 7's

7, 14, 21, 28, 35...

Count by 2's

2, 4, 6, 8, 10, 12, 14, 16, 18, 20

Count by 7's

7, 14, 21, 28, 35...

**The first number IN COMMON
that appears on both lists
becomes the common denominator**

Find the common denominator for:

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

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

cd: 10

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

cd: 21

4. $\frac{2}{3}$ $\frac{4}{15}$

cd: 15

5. $\frac{3}{8}$ $\frac{1}{2}$

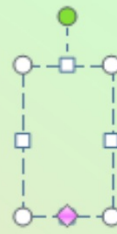
cd: 8

6. $\frac{3}{4}$ $\frac{2}{9}$

cd: 36



adding



ractions

$$\begin{array}{r}
 \boxed{1} \\
 \hline
 \boxed{2} \\
 \boxed{3} \\
 + \boxed{7} \\
 \hline
 \end{array}
 \quad
 \begin{array}{r}
 \times 7 \\
 \hline
 \times 7 \\
 \hline
 \times 2 \\
 \hline
 \times 2 \\
 \hline
 \end{array}
 \quad
 \begin{array}{r}
 7 \\
 \hline
 \boxed{1} \boxed{4} \\
 \hline
 6 \\
 \hline
 \boxed{1} \boxed{4} \\
 \hline
 13 \\
 \hline
 \boxed{1} \boxed{4}
 \end{array}$$

Make equivalent fractions.

Add the numerators

$$7 + 6 = 13$$



Subtracting
Fractions

3

7

1

5

We need a common denominator to add these fractions.

Count by 7's

7, 14, 21, 28, 35, 42, 49, 56, 63

Count by 5's

5, 10, 15, 20, 25, 30, 35, 40, 45

3

7

1

5

x 5

==

x 5

x 7

==

x 7

15

35

7

35

8

35

Make equivalent fractions.

Subtract the numerators

$$15 - 7 = 8$$

Add or subtract the following:

$$7. \quad \frac{4}{5} + \frac{4}{5} =$$

$$8. \quad \frac{4}{2} - \frac{4}{5} =$$

$$\frac{20}{10} - \frac{8}{10} = \frac{12}{10}$$

$$\frac{12}{10} = \frac{\cancel{2}(6)}{\cancel{2}(5)} = \frac{6}{5}$$

$$9) \quad \frac{1}{3} + \frac{4}{7} =$$

$$\frac{7}{21} + \frac{12}{21} = \frac{19}{21}$$

$$10. \quad \frac{2}{3} - \frac{4}{15} =$$

Homework

Foundations of Math 1

Adding and Subtracting Fractions

Name: _____

1. $\frac{1}{9} + \frac{1}{27} =$

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

9. $1\frac{3}{8} - \frac{3}{4}$

2. $\frac{5}{6} + \frac{1}{18}$

6. $\frac{13}{15} + \frac{2}{3}$

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

3. $-\frac{2}{11} + \frac{3}{11}$

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

11. $5\frac{2}{9} - 2\frac{17}{18}$

4. $\frac{2}{5} - \frac{2}{10}$

8. $1\frac{2}{7} - \frac{3}{4}$

12. $5\frac{3}{4} - \frac{11}{12}$

$$13. \frac{4}{15} + \frac{1}{15} =$$

$$17. \frac{3}{10} + \frac{7}{10} =$$

$$21. \frac{5}{11} + \frac{6}{11} =$$

$$14. \frac{3}{5} + \frac{2}{5} =$$

$$18. 1\frac{14}{25} + 5\frac{6}{25} =$$

$$22. 7\frac{3}{15} + \frac{12}{15} =$$

$$15. 3\frac{1}{6} + \frac{3}{6} =$$

$$19. \frac{13}{9} + \frac{17}{9} =$$

23. For a class experiment, Peter's class weighed a log before and after subjecting it to termites. Before subjecting it to termites, the log weighed $\frac{2}{3}$ of a pound. After the termites, the log weighed $\frac{1}{12}$ of a pound. How much weight did the termites take from the log?

$$16. 4\frac{3}{7} + 2\frac{1}{7} =$$

$$20. \frac{3}{16} + 3\frac{5}{16} =$$

