Take out the second sheet from Friday.

1. There are 12 inches in each foot. Write an equation for the number of inches in an unknown number of feet. Define your variables.

EQ: $I = 12 \cdot F$

Variables: I = #inches

F = #feet

#ft	#in
1	12
2	24
3	36

2. There are 1.6 kilometers in each mile. Write an equation for the number of miles in an unknown number of kilometers. Define your variables.

EQ: $m = \frac{K}{1.6}$

Variables: m = #mi

K = #km

#km	#mi
1.6	1
3.2	2
4.8	3

3. There are are 3.8 Liters in every Gallon. Write an equation for the number of Liters in an unknown number of Gallons. Define your variables.

EQ: $L = G \cdot (3.8)$

Variables: L = #Litres

G = #Gallons

#L	#G
3.8	1
7.6	2
11.4	3

4. Write an equation to model the relationship shown in the table. Define your variables.

# inches	#centimeters
4	10.16
7	17.78
10	25.4
13	33.02

$\times 2.54$

$4x = 10.16$

EQ: $C = 2.54 I$

OR $I = \frac{C}{2.54}$

Variables: C = #cm

I = #in

Write an equation to model the relationship in each table.

5.

Number of people	Amount of money raised
6	$300
8	$400
10	$500
12	$600

EQ: $y = 50x$

$x = \frac{y}{50}$

Variables: y = Amt $

x = # people

6.

Mary's age	Amani's age
6	8
9	11
12	14
15	17

EQ: $m = 8 - 2$

$m = A - 2$

or

$A = m + 2$

Variables: m = mary's age

A = Amani's age

7.

#miles drive	Distance remaining on 100 mile bike ride
20	80
35	65
58	42
75	25

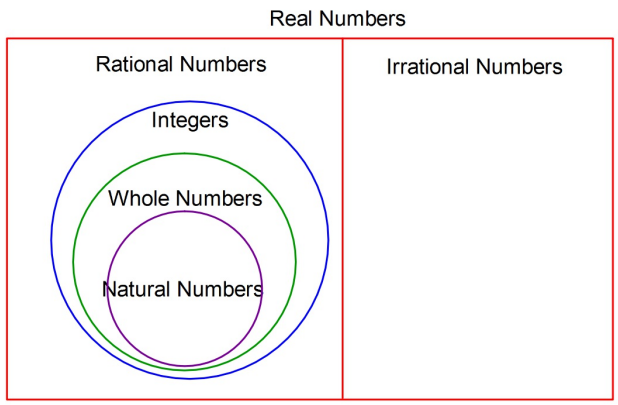
EQ: $m + R = 100$

$m = 100 - R$

$R = 100 - m$

Variables: m = #miles driven

R = #miles remaining



N
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R
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Real Numbers

Rational Numbers

- Any number that can be written as a fraction.
- All terminating decimals.
- All repeating decimals.

$\frac{5}{2}$ 5.2 $.3\overline{3}$

Integers ... -5, -4, -3, -2, -1, 0, 1, 2, 3, 4, 5, ...

Whole Numbers 0, 1, 2, 3, 4, 5, ...

Natural Numbers 1, 2, 3, 4, 5, ...

Counting #s

Irrational Numbers

- Any number that can't be written as a fraction.
- Non-terminating Non-repeating decimals.

Examples of Irrational Numbers

π $\sqrt{2}$

List ALL the categories of Real Numbers that each of the following numbers belongs to.

a. 1.73

Rational

It's a terminating decimal.

Since it has a decimal part it is not an Integer and therefore, not a Whole Number or a Natural Number.

b. $\sqrt{7}$ irrational

7 is not a perfect square

so $\sqrt{7}$ is irrational