

Are there any numbers that are reciprocals of themselves?

If yes, which ones?

ONE  
 $\textcircled{1} = \frac{1}{1}$  Reciprocal  $\frac{1}{1} = \textcircled{1}$   
is  $\rightarrow$

NEG. ONE  
 $\textcircled{-1} = \frac{-1}{1}$  Reciprocal  $\frac{1}{-1} = \textcircled{-1}$   
is  $\rightarrow$

Is each statement true or false? If false, give a counterexample.

The reciprocal of each whole number is a whole number.

False reciprocal of 5, a whole #,  
equals  $\frac{1}{5}$ , not a whole #.

The opposite of each natural number is a natural number.

False. 1 is a nat #, its opposite is -1,  
which is not a natural #

There is no whole number that has an opposite that is a whole number.

False. Zero has an opposite of zero  
which is still whole

There is no integer that has a reciprocal that is an integer.

False. 1 is an Integer  
Its reciprocal is also an int  
(1)

The product of two irrational numbers is an irrational number.

False  $\sqrt{24}$  is irrational. But  $\sqrt{24} \cdot \sqrt{24} = 24$   
this is rat.

Factor.

$49b^6 - 9g^8 \rightarrow b^6 \text{ \& } g^8 \text{ are perfect sq.}$   
If exponents are even.  
 $(7b^3 + 3g^4)(7b^3 - 3g^4)$

What is the difference between these two terms?

Equation

has an  
"=" sign

Expression

No "=" sign

You went to the store and bought some apples at \$1.95 each and some pears at \$2.29 each.

Get a small white board, marker, and rag.

1. Write an expression to model this statement. Define your variables.

$$1.95a + 2.29p$$

$a = \#$  apples  
 $p = \#$  pears

2. Write an equation to model this statement. Define your variables.

$$T = 1.95a + 2.29p$$

$a = \#$  apples  
 $p = \#$  pears  
 $T = \text{TOTAL COST}$