

# MINI-TUTORIAL

## CHOOSING OPERATIONS

# ADDITION OR SUBTRACTION



## HINTS ON WHEN TO USE ADDITION AND WHEN TO USE SUBTRACTION IN WORD PROBLEMS

### Contents:

When to use addition ..... p. 2

When to use subtraction ..... p. 3

Review ..... p. 4 - 5

+ - Wheel ..... p. 6 - 10





# ADDITION

**YOU USE ADDITION** ○○○  
**WHEN TWO GROUPS ARE JOINED TOGETHER**

Look for phrases like:



**"How many in all?"**

There are 8 dogs.  
2 more dogs  
show up. **How  
many dogs in  
all?**

$$8 + 2 = 10$$

**Answer:** 10 dogs



**"How many  
altogether?"**

There are 5 dogs.  
3 cats come over.  
**How many  
animals  
altogether?**

$$5 + 3 = 8$$

**Answer:** 8 animals



**"What is the  
total?"**

There are 9 dogs.  
Another 6 join the  
pack. **What is the  
total number of  
dogs in the pack?**

$$9 + 6 = 15$$

**Answer:** 15 dogs in the  
pack



# SUBTRACTION



**YOU USE SUBTRACTION ...  
WHEN SOMETHING IS TAKEN AWAY**

Look for this phrase:

► **"How many are left?"**

There are 11 dogs. 4 dogs leave to chase a cat. **How many dogs are left?"**

$$11 - 4 = 7$$

**Answer:** 7 dogs are left.



**YOU ALSO USE SUBTRACTION ...  
WHEN YOU COMPARE GROUPS**

Look for:



**"How many more?"**

There are 14 dogs and 16 cats. **How many more cats are there than dogs?**

$$16 - 14 = 2$$

**Answer:** 2 more cats



**"How many fewer?"**

There are 3 pigeons and 7 dogs. **How many fewer pigeons than dogs?**

$$7 - 3 = 4$$

**Answer:** 4 fewer pigeons



**"What's the difference?"**

The Great Dane is 3 feet high. the Chihuahua is 1 foot high. **What is the difference between the two dogs' height?**

$$3 - 1 = 2$$

**Answer:** There is a 2 feet difference



**When you want to know the other part**

There are 10 dogs in the alley. Khalil sees 4. **How many dogs are hiding from Khalil? (Where is the other part of the pack of dogs?)**

$$10 - 4 = 6$$

**Answer:** 4 dogs are hiding

+ - + - + - + - + - + - +

# REVIEW

## ADDITION

### ★ WHEN GROUPS ARE JOINED TOGETHER:

- ▶ "How many in all?"
- ▶ "How many altogether?"
- ▶ "What is the total?"

## SUBTRACTION

### ★ WHEN SOMETHING IS TAKEN AWAY:

- ▶ "How many are left?"

### ★ WHEN YOU COMPARE GROUPS:

- ▶ "How many more?"
- ▶ "How many fewer?"
- ▶ "What's the difference?"
- ▶ When you want to know the other part

+ - + - + - + - + - +

# QUIZ

## PLUS OR MINUS ?

Circle + or -

▶ "How many in all?"

+ -

▶ "How many are left?"

+ -

▶ "How many altogether?"

+ -

▶ "What's the difference?"

+ -

▶ "How many fewer?"

+ -

▶ "What is the total?"

+ -

▶ "How many more?"

+ -


▶ When you want to know the other part

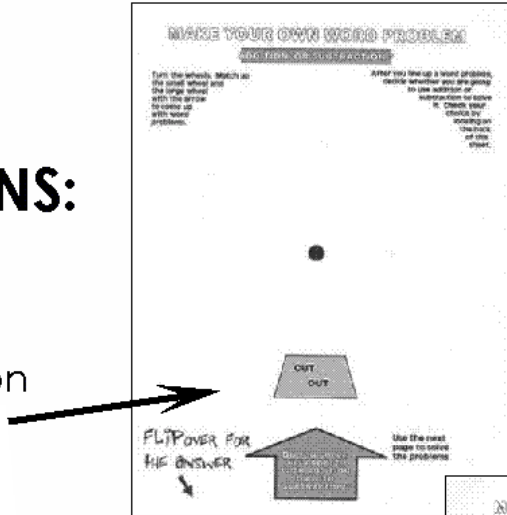
+ -

# +WHEEL-

## MAKE YOUR OWN ADDITION AND SUBTRACTION WORD PROBLEMS

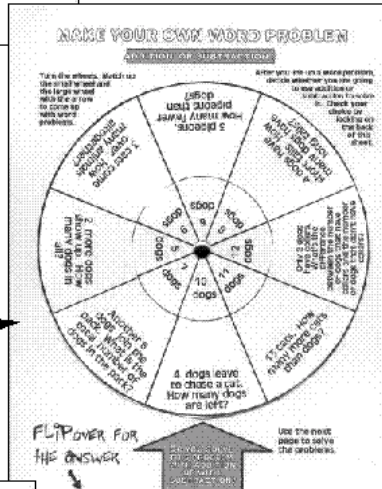
### DIRECTIONS:

1. Cut out the  shape on page 7.

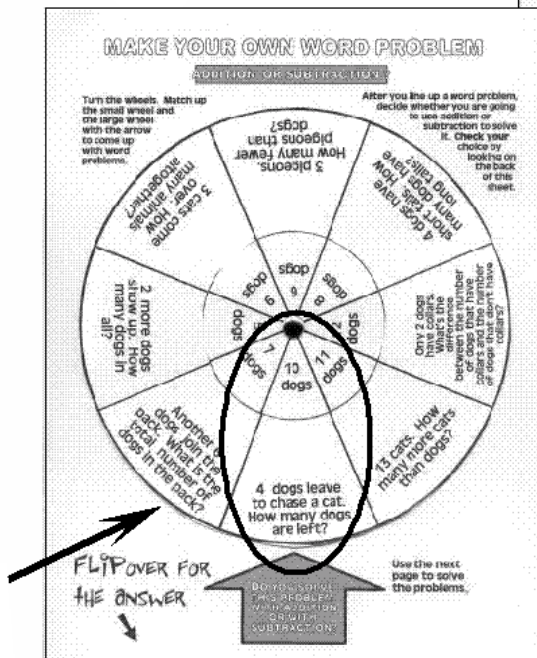


2. Paste page 8 and page 9 together **back to back**. This will make the large circle on page 8 double sided.

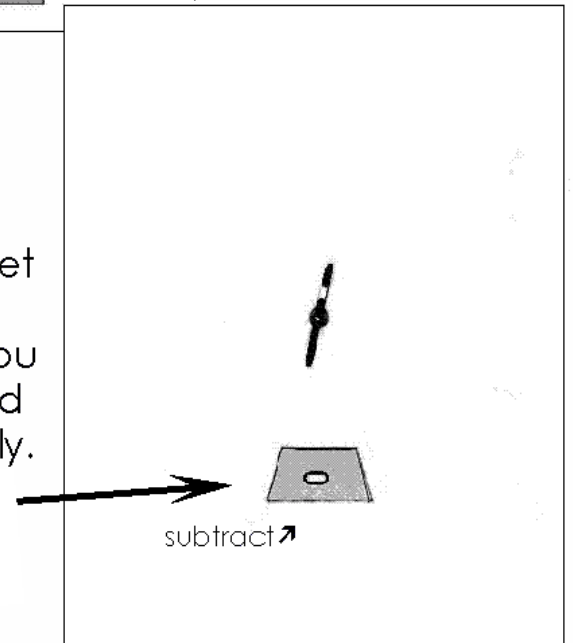
3. Cut out the wheels on this double sided page that you just glued together. With a brass fastener, attach the big wheel and the small wheel to each other and to page 7 as shown.



4. Turn the wheel to make different word problems. Decide whether you need to **add or subtract** to solve that problem.



5. **Flip** the sheet over to see if you decided correctly.

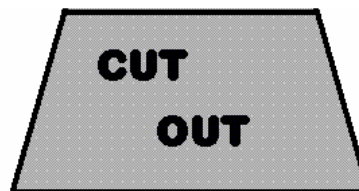


"10 dogs, 4 dogs leave to chase a cat. How many dogs are left?"  $10 - 4 = 6$

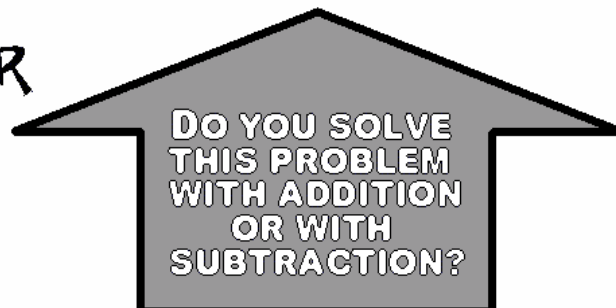
# +WHEEL-

Turn the wheels. Match up the small wheel and the large wheel with the arrow to come up with word problems.

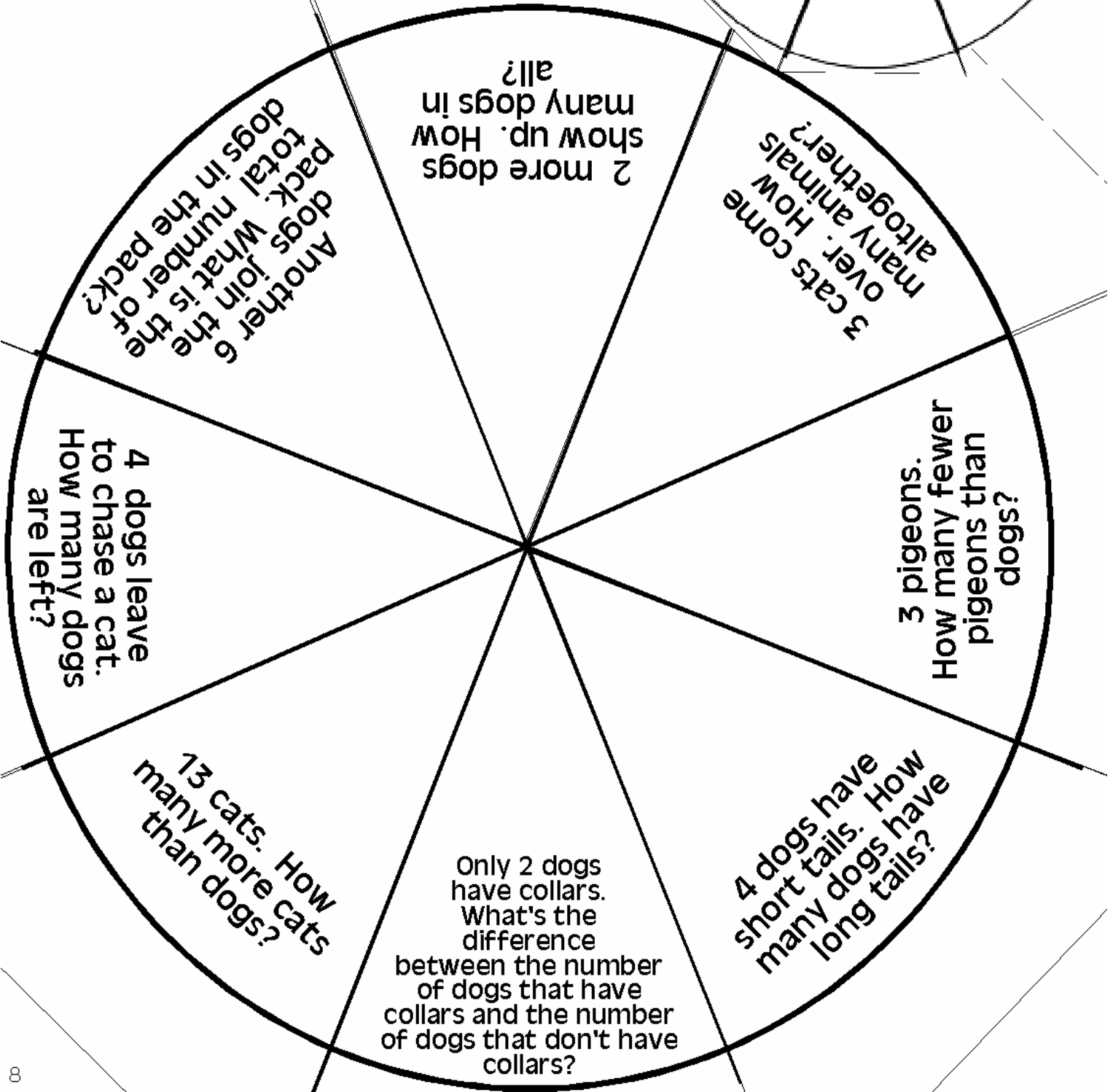
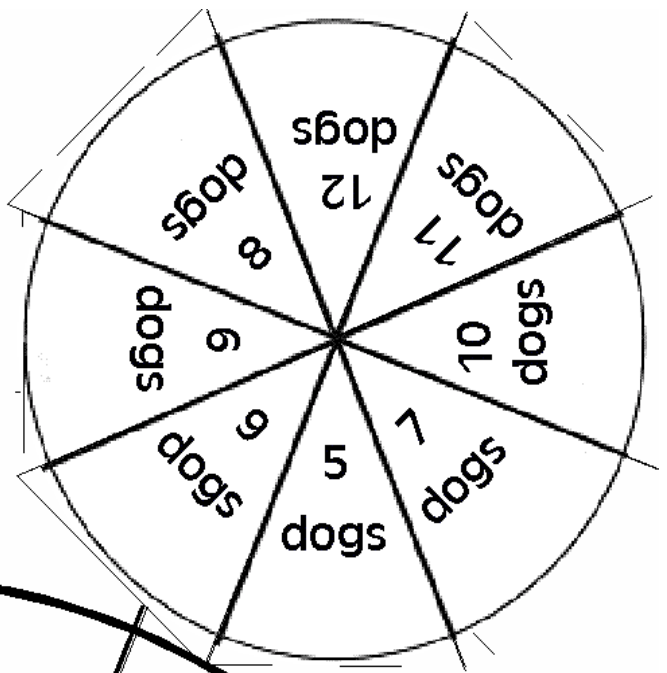
After you line up a word problem, decide whether you are going to use addition or subtraction to solve it. Check your choice by looking on the back of this sheet.



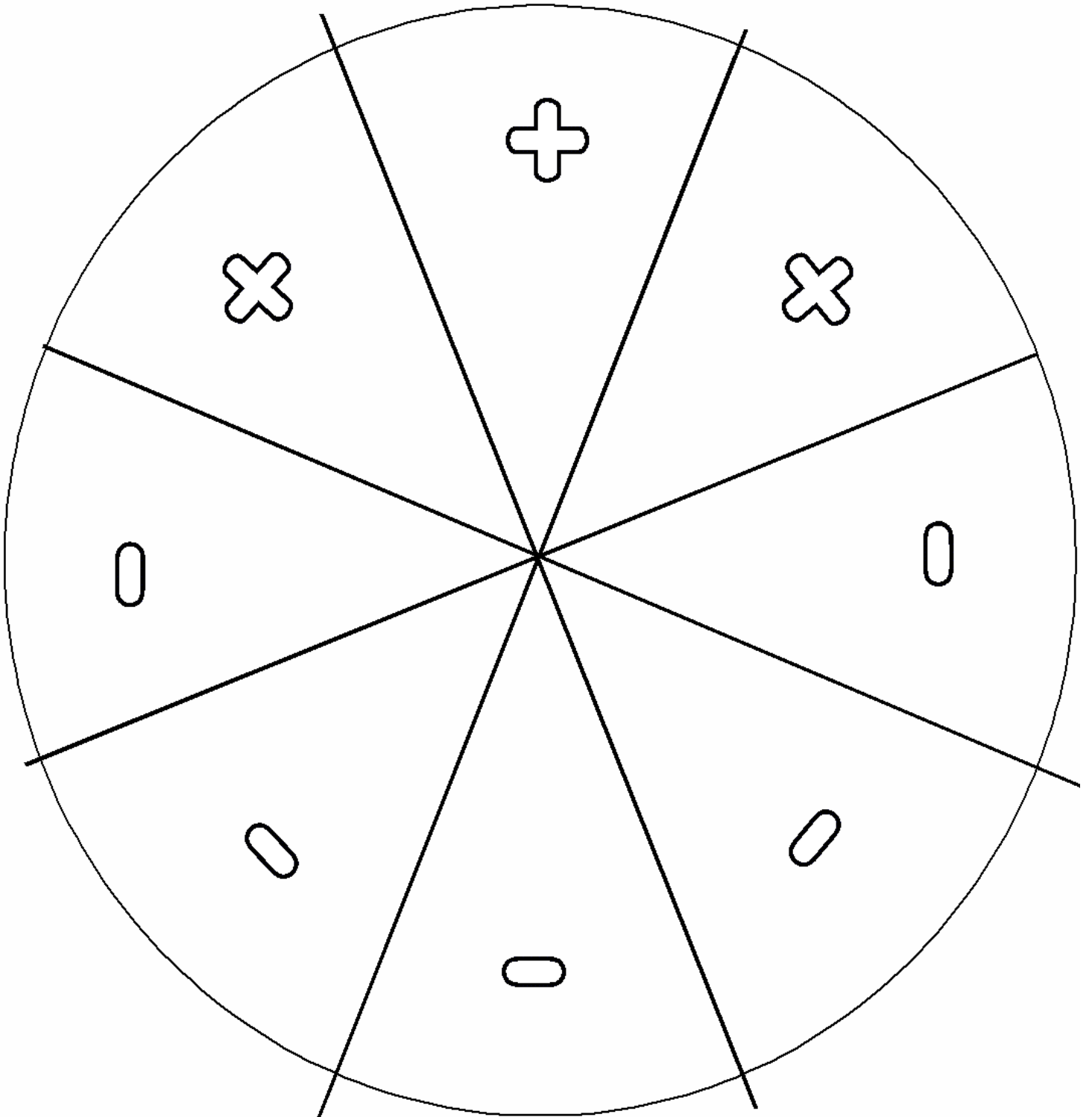
FLIP OVER FOR THE ANSWER



Use the next page to solve the problems...



2 more dogs show up. How many dogs in all?



+ - + - + - + - + - +

# SOLVE THE WORD PROBLEMS

**SOLVE THE WORD PROBLEMS YOU JUST MADE ON YOUR WHEEL**

Fill in the complete number sentence for the word problem you just made on the wheel. Put a plus or a minus sign in the box and solve the problem.

P  
L  
U  
S

$$\underline{\quad} \square \underline{\quad} = \underline{\quad}$$

$$\underline{\quad} \square \underline{\quad} = \underline{\quad}$$

OR

$$\underline{\quad} \square \underline{\quad} = \underline{\quad}$$

$$\underline{\quad} \square \underline{\quad} = \underline{\quad}$$

$$\underline{\quad} \square \underline{\quad} = \underline{\quad}$$

$$\underline{\quad} \square \underline{\quad} = \underline{\quad}$$

P  
L  
U  
S

OR

M  
I  
N  
U  
S

?