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# Take Your Places

## Lessons 1-6

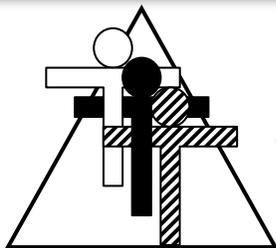
$$\begin{array}{|c|c|} \hline 8 & 5 \\ \hline 2 & 1 \\ \hline \end{array} \times \begin{array}{|c|c|} \hline 8 & 5 \\ \hline 2 & 1 \\ \hline \end{array}$$

1,785

$$\begin{array}{|c|c|} \hline 8 & 1 \\ \hline 2 & 5 \\ \hline \end{array} \times \begin{array}{|c|c|} \hline 8 & 1 \\ \hline 2 & 5 \\ \hline \end{array}$$

2,025

By Brad Fulton  
Educator of the Year, 2005  
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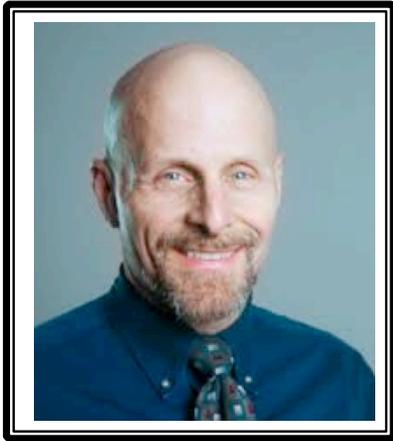
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# Brad Fulton

## Educator of the Year



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- ◆ Consultant
- ◆ Educator
- ◆ Author
- ◆ Keynote presenter
- ◆ Teacher trainer
- ◆ Conference speaker

Known throughout the country for motivating and engaging teachers and students, Brad has co-authored over a dozen books that provide easy-to-teach yet mathematically rich activities for busy teachers while teaching full time for over 30 years. In addition, he has co-authored over 40 teacher training manuals full of activities and ideas that help teachers who believe mathematics must be both meaningful and powerful.

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- ◆ 2005 California League of Middle Schools Educator of the Year
- ◆ California Math Council and NCTM national featured presenter
- ◆ Lead trainer for summer teacher training institutes
- ◆ Trainer/consultant for district, county, regional, and national workshops

### **Author and co-author of mathematics curriculum**

- ◆ Simply Great Math Activities series: six books covering all major strands
- ◆ Angle On Geometry Program: over 400 pages of research-based geometry instruction
- ◆ Math Discoveries series: bringing math alive for students in middle schools
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*References available upon request*

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Thanks and happy teaching,

Brad 

# *I want...*

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- d) **ALL OF THE ABOVE!**

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# Take Your Places: Part 1

## Lessons 1 – 6

### Overview:

This is a powerful lesson that enriches your students' number sense and empowers their mathematical thinking. Each of the six lessons contains an activity master to use in class followed by two or three homework assignments. These will provide hours of classroom use, and of course you can easily design your own problem templates customized to the needs of your students. These six activities cover addition, subtraction, and multiplication of two-digit numbers, division by a one-digit divisor, and addition and subtraction of fractions.

### Required Materials:

- Counters numbered 0–9 or a spinner (provided)
- Activity and homework masters

### Optional Materials:

- Calculators

### Procedure:

This file contains lessons 1–6 from the DVD *Take Your Places*. The video is a site-licensed product that can save your school money over purchasing individually licensed copies of this handout. The DVD contains lessons 7–12 in addition to the six that are included here. The video also demonstrates many teaching tips similar to those that are described below.

1. Pass out one of the activity masters to each student and state the goal. For example, in activity 3, your goal might be to *maximize* the product of the two numbers. Explain that you will draw a digit from a set of ten numbered 0–9. When you draw the number, they are to write it in one of the empty cells. The students may not change the location of the digit once they have recorded it. I like to have my students seated in pairs so that they can see that the rules are being followed. You may also choose to have them write in ink.
2. Ask them where they chose to write the digit and why. For example, if the goal is to maximize the product, larger digits should go in the tens place and smaller numbers in the ones place, although I don't tell them this. As they work, they will think about and discuss the number sense governing the problem and also consider the probability of drawing larger or smaller numbers.
3. Once everyone has recorded the digit, draw the second one. I like to keep the first digit removed so that it is not possible to draw it again. This forces students to reconsider the probability. For example, if the first draw was a 6, there is now only a  $\frac{3}{9}$  probability of drawing a larger digit (7, 8, or 9) since one of the ten original digits has been removed. The students should now record the second digit in one of the remaining empty cells.

4. Draw the third digit and have the students record it in one of the two remaining cells.
5. Then draw a fourth digit and have the students record it in the final empty cell.
6. Ask the students to calculate their problem and share responses. The number sense of this activity arises from three sources: the thinking and discussing the students do as they place their digits, the evolving probability that governs the process, and the questions you ask them to consider as they work. While the DVD goes into this final factor in great detail, here are some typical questions that will foster mathematical thinking:
  - a. Where did you place your digit, and why did you place it there?
  - b. What is the probability that the next digit is greater than 5?
  - c. Does it matter where you place your digit? Why?
  - d. Is it possible for two people to get the same final answer and not place their digits in the same locations?
  - e. How many different arrangements (or problems) can be made using these digits?
  - f. How many different answers can you get by rearranging your digits?
  - g. If you could rearrange your digits now that you know all four of them, what changes would you make?
  - h. What rules are helping you decide where you place your digits?
  - i. What are you learning about how to best play this game?
7. This game can be played as a warm up or extended into a whole class period. The value comes as students play the game multiple times. Then they see how the numbers are functioning in the problem. For example, some students may not realize at first that larger digits should go in the tens place or that order doesn't matter in a multiplication problem. Number sense is built as we play with and work with numbers over a period of time to see how they behave.

## ANSWER KEYS

### Homework 1-A

The six answers are:

84	102
111	120
129	147

The greatest sum of 147 is given by

$83 + 64$
$64 + 83$
$84 + 63$
$63 + 84$

### Homework 1-B

A	$93 + 75 = 168$
B	$82 + 64 = 146$
C	$91 + 65 = 156$
D	$57 + 39 = 96$
E	$78 + 69 = 147$
F	$45 + 07 = 52$
G	$47 + 20 = 67$
H	$49 + 21 = 70$
I	$36 + 19 = 55$

### Homework 2-A

The twelve positive solutions are:

$62 - 57 = 5$
$72 - 65 = 7$
$75 - 62 = 13$
$67 - 52 = 15$
$72 - 56 = 16$
$76 - 52 = 24$
$56 - 27 = 29$
$57 - 26 = 31$
$65 - 27 = 38$
$67 - 25 = 42$
$75 - 26 = 49$
$76 - 25 = 51$

The greatest and minimum differences are shown in the list above.

### Homework 2-B

A	$43 - 32 = 31$
B	$98 - 67 = 31$
C	$65 - 02 = 63$
D	$31 - 24 = 7$
E	$86 - 79 = 7$
F	$72 - 39 = 33$
G	$57 - 08 = 49$
H	$46 - 05 = 41$
I	$87 - 56 = 31$

### Homework 3-A

The twelve products are:

$48 \times 37 = 1,776$
$47 \times 38 = 1,786$
$78 \times 34 = 2,652$
$74 \times 38 = 2,812$
$87 \times 34 = 2,958$
$84 \times 37 = 3,108$
$78 \times 43 = 3,354$
$73 \times 48 = 3,504$
$83 \times 47 = 3,901$
$87 \times 43 = 3,741$
$84 \times 73 = 6,132$
$83 \times 74 = 6,142$

The greatest product can also be obtained by commuting the factors:  
 $74 \times 83 = 6,142$

### Homework 3-B

A	$74 \times 65 = 4,810$
B	$51 \times 43 = 2,193$
C	$80 \times 76 = 6,080$
D	$57 \times 46 = 2,622$
E	$35 \times 14 = 490$
F	$78 \times 06 = 468^*$
G	$53 \times 46 = 2,438$
H	$54 \times 36 = 1,944$
I	$46 \times 35 = 1,610$

\* Notice that if one of the digits is zero, the two greatest digits do not go in the ones column.

### Homework 3-C

- 1  $da \times cb$
- 2  $ab \times dc$

Arranged from least to greatest the numbers are:

$dc, db, da, cd, cb, ca,$   
 $bd, bc, ba, ad, ac, ab$

### Homework 4-A

The six possible problems and quotients are:

- $63 \div 7 = 9$
- $36 \div 7 = 5 \text{ R}1$
- $73 \div 6 = 9 \text{ R}1$
- $37 \div 6 = 6 \text{ R}1$
- $76 \div 3 = 25 \text{ R}1$
- $67 \div 3 = 22 \text{ R}1$

### Homework 4-B

- A  $876 \div 5 = 175 \text{ R}1$
- B  $960 \div 4 = 240$
- C  $567 \div 8 = 70 \text{ R}7$
- D  $046 \div 9 = 5 \text{ R}1$

### Homework 4-C

- 1  $abc \div d$  This assumes that  $d \neq 0$
- 2  $dcb \div a$

The highest possible value of  $d$  is 6, because then you would have:  $c = 7, b = 8,$  and  $a = 9.$

### Homework 5-A

- 1  $\frac{9}{2} + \frac{6}{3} = \frac{13}{2} = 6\frac{1}{2}$
- 2  $\frac{2}{9} + \frac{3}{6} = \frac{35}{54}$
- 3 There are two solutions:  
 $\frac{2}{6} + \frac{3}{9} = \frac{2}{3}$   
 $\frac{2}{3} + \frac{6}{9} = \frac{4}{3} = 1\frac{1}{3}$

### Homework 5-B

- 1  $\frac{a}{d} + \frac{b}{c}$   
and  $\frac{b}{c} + \frac{a}{d}$
- 2  $\frac{d}{a} + \frac{c}{b}$   
and  $\frac{c}{b} + \frac{d}{a}$
- 3  $\frac{c}{b}$
- 4  $\frac{a}{b}$
- 5  $\frac{a}{d}$

### Homework 6-A

- 1  $\frac{8}{1} - \frac{3}{5} = \frac{37}{5} = 7\frac{2}{5}$
- 2  $\frac{3}{8} - \frac{1}{5} = \frac{7}{40}$
- 3  $\frac{8}{5} - \frac{1}{3} = \frac{19}{15} = 1\frac{4}{15}$

### Homework 6-B

- 1  $\frac{a}{d} - \frac{c}{b}$
- 2  $\frac{c}{a} - \frac{d}{b}$
- 3 3, 4, 5, 6, 7, 8, 9
- 4 2, 3, 4, 5, 6, 7, 8
- 5 1, 2, 3, 4, 5, 6, 7
- 6 0, 1, 2, 3, 4, 5, 6

# Take Your Places

Name \_\_\_\_\_

Date \_\_\_\_\_ Period \_\_\_\_\_

As your teacher calls out digits, place them in the empty boxes to achieve the goal. Once you write in a digit, it cannot be moved.

Goal: \_\_\_\_\_

A


+ \_\_\_\_\_

B


+ \_\_\_\_\_

C


+ \_\_\_\_\_

D


+ \_\_\_\_\_

E


+ \_\_\_\_\_

F


+ \_\_\_\_\_

G


+ \_\_\_\_\_

H


+ \_\_\_\_\_

I


+ \_\_\_\_\_

# Take Your Places

## Homework 1-A

Name \_\_\_\_\_

Date \_\_\_\_\_ Period \_\_\_\_\_

Place the digits 4, 6, 8, and 3 in the four cells of each problem to get the six different answers.

A


+ \_\_\_\_\_

B


+ \_\_\_\_\_

C


+ \_\_\_\_\_

D


+ \_\_\_\_\_

E


+ \_\_\_\_\_

F


+ \_\_\_\_\_

Which problem gave you the greatest sum? \_\_\_\_\_

Show three more ways to arrange the digits that will give the same sum.

G


+ \_\_\_\_\_

H


+ \_\_\_\_\_

I


+ \_\_\_\_\_

# Take Your Places

## Homework 1-B

Name \_\_\_\_\_

Date \_\_\_\_\_ Period \_\_\_\_\_

Place the digits in each problem to get the **maximum** sum.

3, 5, 7, 9

A

$$\begin{array}{r} \square \square \\ + \square \square \\ \hline \end{array}$$

2, 4, 6, 8

B

$$\begin{array}{r} \square \square \\ + \square \square \\ \hline \end{array}$$

1, 9, 6, 5

C

$$\begin{array}{r} \square \square \\ + \square \square \\ \hline \end{array}$$

Place the digits in each problem to get the **minimum** sum.

3, 5, 7, 9

D

$$\begin{array}{r} \square \square \\ + \square \square \\ \hline \end{array}$$

6, 7, 8, 9

E

$$\begin{array}{r} \square \square \\ + \square \square \\ \hline \end{array}$$

7, 4, 0, 5

F

$$\begin{array}{r} \square \square \\ + \square \square \\ \hline \end{array}$$

Place the digits in each problem to make the sum as **close to 68** as possible.

2, 0, 7, 4

G

$$\begin{array}{r} \square \square \\ + \square \square \\ \hline \end{array}$$

1, 9, 4, 2

H

$$\begin{array}{r} \square \square \\ + \square \square \\ \hline \end{array}$$

3, 6, 1, 9

I

$$\begin{array}{r} \square \square \\ + \square \square \\ \hline \end{array}$$

# Take Your Places 2

Name \_\_\_\_\_

Date \_\_\_\_\_ Period \_\_\_\_\_

As your teacher calls out digits, place them in the empty boxes to achieve the goal. Once you write in a digit, it cannot be moved.

Goal: \_\_\_\_\_

A


\_\_\_\_\_

---

B


\_\_\_\_\_

---

C


\_\_\_\_\_

---

D


\_\_\_\_\_

---

E


\_\_\_\_\_

---

F


\_\_\_\_\_

---

G


\_\_\_\_\_

---

H


\_\_\_\_\_

---

I


\_\_\_\_\_

---

# Take Your Places

## Homework 2-A

Name \_\_\_\_\_

Date \_\_\_\_\_ Period \_\_\_\_\_

Place the digits 2, 7, 5, and 6 in the four cells of each problem to get twelve different positive differences.

A


—

---

B


—

---

C


—

---

D


—

---

E


—

---

F


—

---

G


—

---

H


—

---

I


—

---

J


—

---

K


—

---

L


—

---

Which problem gave you the greatest difference? \_\_\_\_\_

Which problem gave you the least difference \_\_\_\_\_

# Take Your Places

## Homework 2-B

Name \_\_\_\_\_

Date \_\_\_\_\_ Period \_\_\_\_\_

Place the digits in each problem to get the **maximum** difference.

1, 2, 3, 4

A


—

---

6, 7, 8, 9

B


—

---

0, 2, 6, 5

C


—

---

Place the digits in each problem to get the **minimum** difference.

1, 2, 3, 4

D


—

---

6, 7, 8, 9

E


—

---

3, 7, 2, 9

F


—

---

Place the digits in each problem to make the difference. as **close to 42** as possible.

0, 5, 7, 8

G


—

---

5, 0, 6, 4

H


—

---

8, 7, 6, 5

I


—

---

# Take Your Places 3

Name \_\_\_\_\_

Date \_\_\_\_\_ Period \_\_\_\_\_

As your teacher calls out digits, place them in the empty boxes to achieve the goal. Once you write in a digit, it cannot be moved.

Goal: \_\_\_\_\_

A


X

---

B


X

---

C


X

---

D


X

---

E


X

---

F


X

---

G


X

---

H


X

---

I


X

---

# Take Your Places

## Homework 3-A

Name \_\_\_\_\_

Date \_\_\_\_\_ Period \_\_\_\_\_

Place the digits 3, 8, 4, and 7 in the four cells of each problem to get the twelve different products.

A


×

---

B


×

---

C


×

---

D


×

---

E


×

---

F


×

---

G


×

---

H


×

---

I


×

---

J


×

---

K


×

---

L


×

---

Which problem gave you the greatest product? \_\_\_\_\_

Arrange the digits a different way to get the same product.

M


×

---

# Take Your Places

## Homework 3-B

Name \_\_\_\_\_

Date \_\_\_\_\_ Period \_\_\_\_\_

Place the digits in the four cells of each problem to get the **maximum** product.

A

4, 5, 6, 7

×		

---

B

4, 5, 3, 1

×		

---

C

6, 8, 0, 7

×		

---

Place the digits in the four cells of each problem to get the **minimum** product.

D

4, 5, 6, 7

×		

---

E

4, 5, 3, 1

×		

---

F

6, 8, 0, 7

×		

---

Place the digits 4, 6, 3, and 5 in the four cells of each problem to get the **as close as possible** to the target product.

Target: 2,500

G

×		

---

Target: 1,950

H

×		

---

Target: 1,583

I

×		

---



# Take Your Places 4

Name \_\_\_\_\_

Date \_\_\_\_\_ Period \_\_\_\_\_

As your teacher calls out digits, place them in the empty boxes to achieve the goal. Once you write in a digit, it cannot be moved.

Goal: \_\_\_\_\_

A


B


C


D


# Take Your Places

## Homework 4-A

Name \_\_\_\_\_

Date \_\_\_\_\_ Period \_\_\_\_\_

Place the digits 6, 7, and 3 in the cells of each problem to show all six quotients.

A  $\square \overline{) \square \square}$

B  $\square \overline{) \square \square}$

C  $\square \overline{) \square \square}$

D  $\square \overline{) \square \square}$

E  $\square \overline{) \square \square}$

F  $\square \overline{) \square \square}$

# Take Your Places

## Homework 4-B

Name \_\_\_\_\_

Date \_\_\_\_\_ Period \_\_\_\_\_

Place the digits in the four cells of each problem to get the **maximum** quotient.

5, 6, 7, 8

A 

--	--	--	--

6, 4, 9, 0

B 

--	--	--	--

Place the digits in the four cells of each problem to get the **minimum** quotient.

5, 6, 7, 8

C 

--	--	--	--

6, 4, 9, 0

D 

--	--	--	--

# Take Your Places

## Homework 4-C

Name \_\_\_\_\_

Date \_\_\_\_\_ Period \_\_\_\_\_

The letters  $a$ ,  $b$ ,  $c$ , and  $d$  are variables representing single digit nonzero numbers such that  $a > b > c > d$ . That is  $a$  represents the digit of greatest value and  $d$  represents the digit of least value.

1. Place the variables in the four cells to get the **maximum** quotient.


2. Now place the variables in the four cells to get the **minimum** quotient.


3. What is the highest value that  $d$  could represent? \_\_\_\_\_ Why?

---

# Take Your Places 5

Name \_\_\_\_\_

Date \_\_\_\_\_ Period \_\_\_\_\_

As your teacher calls out digits, place them in the empty boxes to achieve the goal. Once you write in a digit, it cannot be moved.

Goal: \_\_\_\_\_

A

$$\begin{array}{r} \square \\ \hline \square \end{array} + \begin{array}{r} \square \\ \hline \square \end{array} =$$

B

$$\begin{array}{r} \square \\ \hline \square \end{array} + \begin{array}{r} \square \\ \hline \square \end{array} =$$

C

$$\begin{array}{r} \square \\ \hline \square \end{array} + \begin{array}{r} \square \\ \hline \square \end{array} =$$

D

$$\begin{array}{r} \square \\ \hline \square \end{array} + \begin{array}{r} \square \\ \hline \square \end{array} =$$

E

$$\begin{array}{r} \square \\ \hline \square \end{array} + \begin{array}{r} \square \\ \hline \square \end{array} =$$

F

$$\begin{array}{r} \square \\ \hline \square \end{array} + \begin{array}{r} \square \\ \hline \square \end{array} =$$

# Take Your Places

## Homework 5-A

Name \_\_\_\_\_

Date \_\_\_\_\_ Period \_\_\_\_\_

1. Place the digits 2, 6, 9, and 3 in the four cells to **maximize** the sum.

$$\begin{array}{|c|} \hline \square \\ \hline \square \\ \hline \end{array} + \begin{array}{|c|} \hline \square \\ \hline \square \\ \hline \end{array} =$$

2. Place the digits 2, 6, 9, and 3 in the four cells to **minimize** the sum.

$$\begin{array}{|c|} \hline \square \\ \hline \square \\ \hline \end{array} + \begin{array}{|c|} \hline \square \\ \hline \square \\ \hline \end{array} =$$

3. Place the digits 2, 6, 9, and 3 in the four cells to get a sum **as close as possible** to one.

$$\begin{array}{|c|} \hline \square \\ \hline \square \\ \hline \end{array} + \begin{array}{|c|} \hline \square \\ \hline \square \\ \hline \end{array} =$$

# Take Your Places

## Homework 5-B

Name \_\_\_\_\_

Date \_\_\_\_\_ Period \_\_\_\_\_

The letters  $a$ ,  $b$ ,  $c$ , and  $d$  are variables representing single digit numbers such that  $a > b > c > d$ . That is  $a$  represents the digit of greatest value and  $d$  represents the digit of least value.

1. Place the four variables in the cells in order to **maximize** the sum. There are two ways to do this.

$$\begin{array}{|c|} \hline \square \\ \hline \square \\ \hline \end{array} + \begin{array}{|c|} \hline \square \\ \hline \square \\ \hline \end{array} =$$

$$\begin{array}{|c|} \hline \square \\ \hline \square \\ \hline \end{array} + \begin{array}{|c|} \hline \square \\ \hline \square \\ \hline \end{array} =$$

2. Place the four variables in the cells in order to **minimize** the sum. There are two ways to do this.

$$\begin{array}{|c|} \hline \square \\ \hline \square \\ \hline \end{array} + \begin{array}{|c|} \hline \square \\ \hline \square \\ \hline \end{array} =$$

$$\begin{array}{|c|} \hline \square \\ \hline \square \\ \hline \end{array} + \begin{array}{|c|} \hline \square \\ \hline \square \\ \hline \end{array} =$$

Circle the greater fraction in each pair.

3.

$$\frac{d}{a} \quad \frac{c}{b}$$

4.

$$\frac{b}{b} \quad \frac{a}{b}$$

5.

$$\frac{a}{d} \quad \frac{b}{c}$$

# Take Your Places 6

Name \_\_\_\_\_

Date \_\_\_\_\_ Period \_\_\_\_\_

As your teacher calls out digits, place them in the empty boxes to achieve the goal. Once you write in a digit, it cannot be moved.

Goal: \_\_\_\_\_

A

$$\begin{array}{r} \square \\ \hline \square \end{array} - \begin{array}{r} \square \\ \hline \square \end{array} =$$

B

$$\begin{array}{r} \square \\ \hline \square \end{array} - \begin{array}{r} \square \\ \hline \square \end{array} =$$

C

$$\begin{array}{r} \square \\ \hline \square \end{array} - \begin{array}{r} \square \\ \hline \square \end{array} =$$

D

$$\begin{array}{r} \square \\ \hline \square \end{array} - \begin{array}{r} \square \\ \hline \square \end{array} =$$

E

$$\begin{array}{r} \square \\ \hline \square \end{array} - \begin{array}{r} \square \\ \hline \square \end{array} =$$

F

$$\begin{array}{r} \square \\ \hline \square \end{array} - \begin{array}{r} \square \\ \hline \square \end{array} =$$

# Take Your Places

## Homework 6-A

Name \_\_\_\_\_

Date \_\_\_\_\_ Period \_\_\_\_\_

1. Place the digits 8, 3, 5, and 1 in the four cells to **maximize** the difference.

$$\begin{array}{r} \square \\ \hline \square \end{array} - \begin{array}{r} \square \\ \hline \square \end{array} =$$

2. Place the digits 8, 3, 5, and 1 in the four cells to **minimize** the difference while keeping the answer positive.

$$\begin{array}{r} \square \\ \hline \square \end{array} - \begin{array}{r} \square \\ \hline \square \end{array} =$$

3. Place the digits 8, 3, 5, and 1 in the four cells to get a difference **as close as possible** to one.

$$\begin{array}{r} \square \\ \hline \square \end{array} - \begin{array}{r} \square \\ \hline \square \end{array} =$$

# Take Your Places

## Homework 6-B

Name \_\_\_\_\_

Date \_\_\_\_\_ Period \_\_\_\_\_

The letters  $a$ ,  $b$ ,  $c$ , and  $d$  are variables representing single digit numbers such that  $a > b > c > d$ . That is  $a$  represents the digit of greatest value and  $d$  represents the digit of least value.

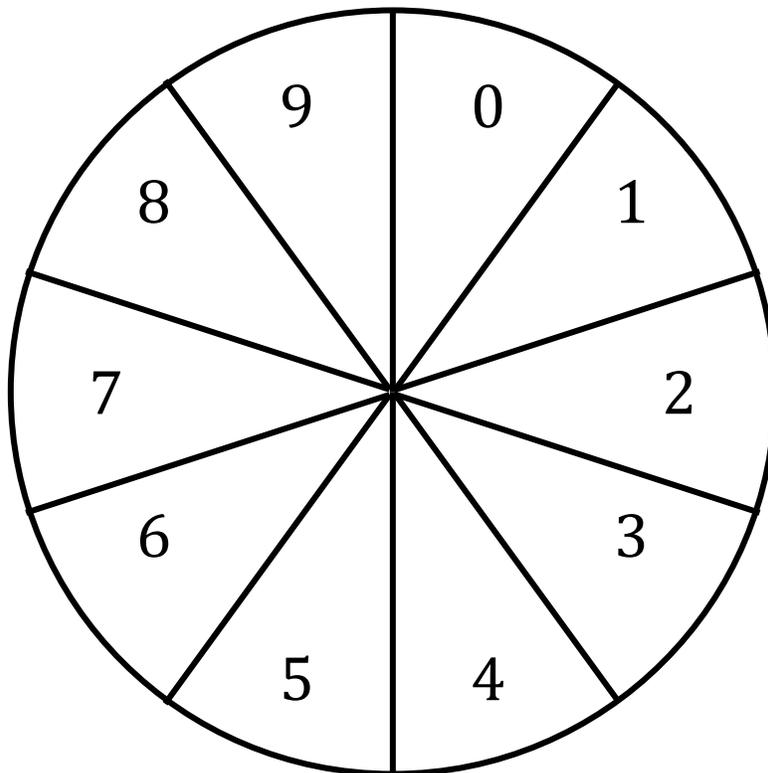
- Place the four variables in the cells in order to **maximize** the difference. There are two ways to do this.

$$\begin{array}{r} \square \\ \hline \square \end{array} - \begin{array}{r} \square \\ \hline \square \end{array} = \underline{\hspace{2cm}}$$

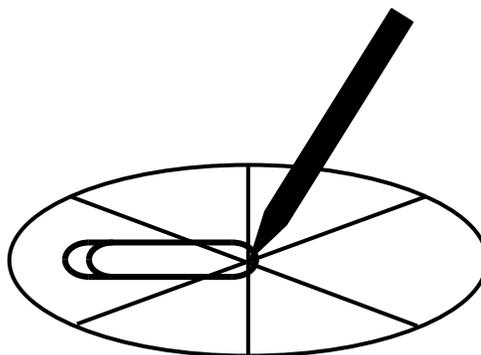
- Place the four variables in the cells in order to **minimize** the difference. There are two ways to do this.

$$\begin{array}{r} \square \\ \hline \square \end{array} - \begin{array}{r} \square \\ \hline \square \end{array} = \underline{\hspace{2cm}}$$

- What possible values could the variable  $a$  represent? \_\_\_\_\_
- What possible values could the variable  $b$  represent? \_\_\_\_\_
- What possible values could the variable  $c$  represent? \_\_\_\_\_
- What possible values could the variable  $d$  represent? \_\_\_\_\_



To use the spinners, set a paper clip on the center of a spinner. Place a pencil point on the center and spin the paper clip as shown.



If you liked this activity, you might also like some of the other character education lessons available in my TeachersPayTeachers store. Simply search for "Brad Fulton".

You can also find many free and inexpensive resources on my personal website, [www.tttpress.com](http://www.tttpress.com). Be sure to subscribe to receive monthly newsletters, blogs, and activities.

Similar activities include:

- *Take Your Places: Activities 7-12* (Covering multiplication and division of fractions, order of operations, parentheses, and the compound interest formula.)
- *Math Maps: Developing the Mathematical Practices*
- *Sum Thing Interesting: Finding Amazing Patterns in Addition*
- *Array We Go: Building: An Engaging and Visual Representation of Factors, Multiples, Primes, and Composites, and More*
- *Developing Number Sense*

Feel free to contact me if you have questions or comments or would like to discuss a staff development training or keynote address at your site.

Happy teaching,

*Brad*