



Activity 11

Exponent Game

Name _____

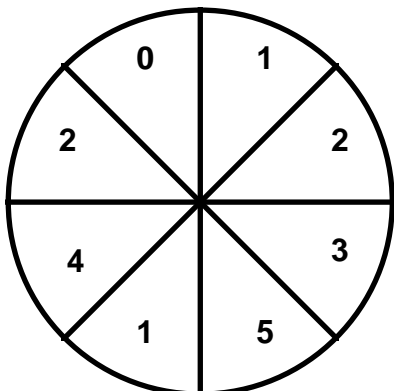
Date _____

Rules

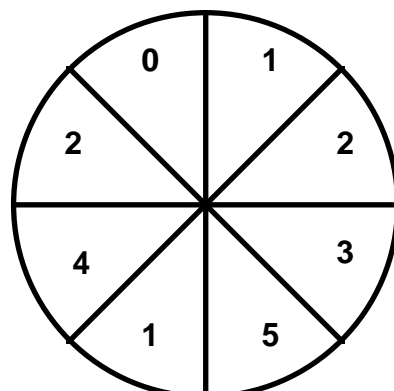
1. This game is for two players. The winner is the player whose cumulative total is closer to zero.
2. The person with the shorter hair becomes Player A. Player A plays first in the odd numbered rounds. Player B plays first in the even numbered rounds. Player A always spins Spinner A, and Player B always spins Spinner B.
3. Each player must have a calculator. At the start of the game, the memory in each calculator should be cleared.
4. In each round, the players use paper clips to generate numbers on their spinners. If a paper clip lands on a line, spin again. If the two numbers are the same, the second player for that round spins until the two numbers are different. Record the results of the spins on the SPINNER RESULTS FORM.
5. In each round, the first player has two choices:
 - Use the generated numbers to compute either A^B or B^A .
 - **Add or subtract** one of these values to her/his cumulative total.
6. The second player must use the unchosen value (A^B or B^A) and **add** that amount to memory. The second player may **not** subtract.
7. For Round 1, store the first resulting number in memory by using the **[STO]** key.
8. For Rounds 2-6, add to memory by using the **[SUM]** or **[SUM]** key.
9. There are two ways to access the amount stored in memory at any time during play.
 - Press the **[RCL]** key. This does not change the value in memory.
 - Press the **[EXC]** key. This switches the amount shown in the display with the value in memory. Once you have viewed the value that was in memory, press the **[EXC]** key a second time to put that value back in memory.
10. For each round, both players record the required information on their respective PLAYER RECORDING FORMS: the number (A^B or B^A) used (written in exponential notation), the value of that product, and the cumulative total at the end of the round.
11. The winner is the player whose cumulative total (value in memory) after six rounds is closer to 0. The score may be a positive or a negative number.

Game Sheet 1

Spinner A for Player A



Spinner B for Player B



SPINNER RESULTS FORM

Round	A	B
1		
2		
3		
4		
5		
6		

RECORDING FORM FOR PLAYER A

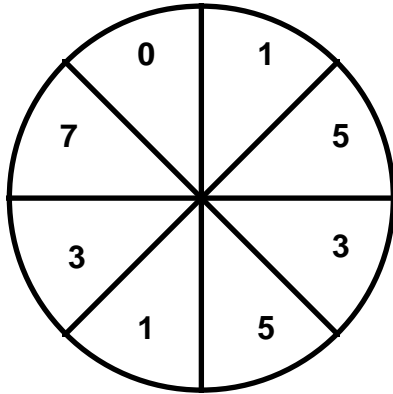
Round	Y^x (A^B or B^A)	Value of Y^x	Cumulative Total
1			
2			
3			
4			
5			
6			

RECORDING FORM FOR PLAYER B

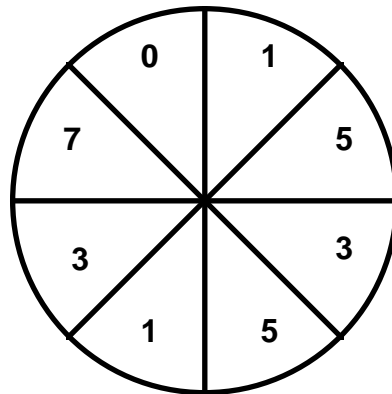
Round	Y^x (A^B or B^A)	Value of Y^x	Cumulative Total
1			
2			
3			
4			
5			
6			

Game Sheet 2

Spinner A for Player A



Spinner B for Player B



SPINNER RESULTS FORM

Round	A	B
1		
2		
3		
4		
5		
6		

RECORDING FORM FOR PLAYER A

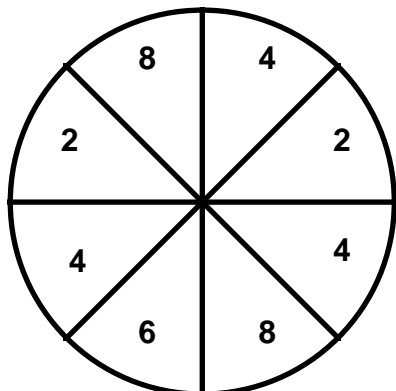
Round	Y^x (A^B or B^A)	Value of Y^x	Cumulative Total
1			
2			
3			
4			
5			
6			

RECORDING FORM FOR PLAYER B

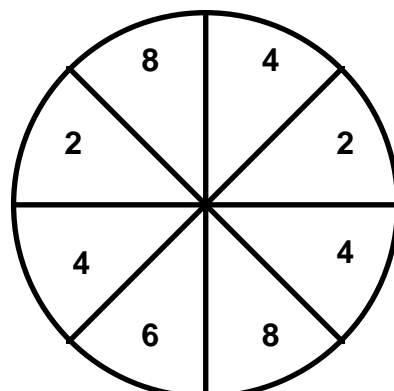
Round	Y^x (A^B or B^A)	Value of Y^x	Cumulative Total
1			
2			
3			
4			
5			
6			

Game Sheet 3

Spinner A for Player A



Spinner B for Player B



SPINNER RESULTS FORM

Round	A	B
1		
2		
3		
4		
5		
6		

RECORDING FORM FOR PLAYER A

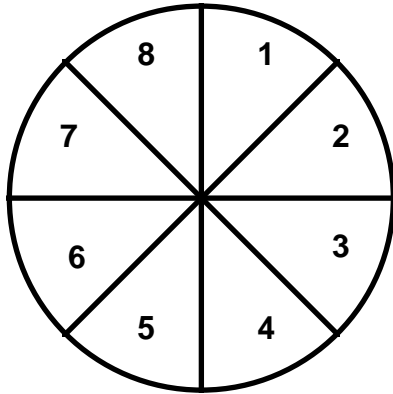
Round	$Y^x (A^B \text{ or } B^A)$	Value of Y^x	Cumulative Total
1			
2			
3			
4			
5			
6			

RECORDING FORM FOR PLAYER B

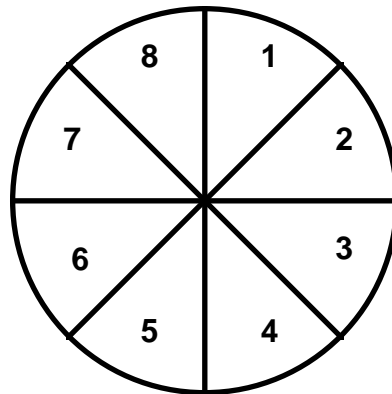
Round	$Y^x (A^B \text{ or } B^A)$	Value of Y^x	Cumulative Total
1			
2			
3			
4			
5			
6			

Game Sheet 4

Spinner A for Player A



Spinner B for Player B



SPINNER RESULTS FORM

Round	A	B
1		
2		
3		
4		
5		
6		

RECORDING FORM FOR PLAYER A

Round	Y^x (A^B or B^A)	Value of Y^x	Cumulative Total
1			
2			
3			
4			
5			
6			

RECORDING FORM FOR PLAYER B

Round	Y^x (A^B or B^A)	Value of Y^x	Cumulative Total
1			
2			
3			
4			
5			
6			

