



## OPERATION SENSE

Name: *Six Charts*

Type: *Game*

**About the Game:** It's not uncommon for middle school students to still be developing quick recall of basic facts. Even those who have realized this may not connect them well to working with integers and decimals. This game features six related charts connected to basic facts in the upper left-hand corner. Students roll two factors to find a product to record on one of the charts working to get a line of products on three of the charts. You can easily adjust the factors and the given products on any of the charts.

**Materials:** Digit cards (0–9) or playing cards (queens = 0, aces = 1; remove 10s, kings, and jacks) or 10-sided die; Six Charts game board, unit fraction cards

- Directions:**
1. Players take turns rolling two digits. The digits can represent tenths, hundredths, or integer factors. For example, Jake rolls 4 and 6 and can use them as 4,  $-4$ , 0.4, or 0.04. He can use the 6 in the same way.
  2. Players find the product of the digits and how they are viewed. Jake uses his 4 and 6, as  $-4$  and  $-6$  and covers 24.
  3. If a product is already covered, the player loses their turn.
  4. The first player to cover a line of products on three charts wins.

# SIX CHARTS

**Directions:** Players generate two numbers. The numbers can represent two positive, a negative and a positive factor, two negative factors, a whole number and a tenth, or two factors that are both tenths. The player fills the corresponding product on one of the charts. The first player to get a line of products on three of the charts wins the game.

x	5	6	7	8	9
2	10		14		
3			21		
4		24			
5					45
6					
7	35				

x	5	6	7	8	9
-2	-10		-14		
-3			-21		
-4		24			-36
-5				-40	
-6	-30				
-7					

x	-5	-6	-7	-8	-9
2	-10		-14		
3			-21		
4					
5			-35		
6					
7	-35				

x	-5	-6	-7	-8	-9
-2	10		14		
-3					
-4	20				
-5				40	
-6					
-7					

x	0.5	0.6	0.7	0.8	0.9
2	1.0		1.4		
3			2.1		
4				3.2	
5					4.5
6		3.6			
7			4.9		

x	0.5	0.6	0.7	0.8	0.9
0.2	0.1		0.14		
0.3			0.21		
0.4					
0.5					
0.6			0.42		
0.7					0.63