

Name: _____ Date: _____

Garage Sale Dominoes

Mrs. Simpson loves to shop at garage sales and often finds useful things for her classroom. Today she found a house selling used sets of dominoes. She wants to make sure that she only buys complete sets of the double-six dominoes.



- How many dominoes should there be in a complete set of double-six dominoes?
- Use words, pictures and/or numbers to explain how you know your answer is correct.

Name: Sample Solution Date: _____

Garage Sale Dominoes

Mrs. Simpson loves to shop at garage sales and often finds useful things for her classroom. Today she found a house selling used sets of dominoes. She wants to make sure that she only buys complete sets of the double-six dominoes.



- How many different dominoes should there be in a complete set of double-six dominoes?
- Use words, pictures and/or numbers to explain how you know your answer is correct.

Plan:

Each domino in a double-six set has a number from 0-6 on each side. The set should have all possible combinations. I'll make an orderly list of these combinations. I have to be careful not to count the same "fact" twice because the domino with 0 and 1 is the same as the domino with 1 and 0!

0 + 0	0 + 1	0 + 2	0 + 3	0 + 4	0 + 5	0 + 6
	1 + 1	1 + 2	1 + 3	1 + 4	1 + 5	1 + 6
		2 + 2	2 + 3	2 + 4	2 + 5	2 + 6
			3 + 3	3 + 4	3 + 5	3 + 6
				4 + 4	4 + 5	4 + 6
					5 + 5	5 + 6
						6 + 6

Answer: A complete set of double-six dominoes should have 28 different dominoes, as listed in the table above.