

TWO KINDS OF RELATIONSHIPS

1. DIRECT RELATIONSHIP: Two variables have a direct relationship if they always BOTH CHANGE AT THE SAME TIME IN THE SAME DIRECTION.

When two variables change in the same direction, they always either both get bigger or both get smaller. If one variable becomes bigger, so does the other. If one of them becomes smaller, the other becomes smaller.

As an example of a direct relationship, consider two variables, the DISTANCE that a car is driven at a steady speed, and the TIME that it is driven. The longer a car is driven at the same speed, the greater the distance it goes. The shorter the time, the less distance it covers. The time and the distance are DIRECTLY related.

DIRECTIONS: In the examples below write the word DIRECT after the statement if it is a direct relationship. Leave blank if it is not a direct relationship.

1. The distance a car travels and the quantity of gasoline used up. _____
2. The number of baseballs and the weight of all the baseballs. _____
3. The number of slices of bread in a loaf and the volume that they take up. _____
4. The number of slices of bread in a loaf eaten and the number remaining. _____
5. The time a candle burns and the length of the candle. _____
6. The number of desks in the classroom and the color of your shoes. _____

DIRECTIONS: Each of the following tables shows the quantity of **B** for each quantity of **A** given. The units have been omitted. Which of these choices show a direct relationship? There is more than one.

1	A	B
	1	3
	2	4
	3	5
	4	6

2	A	B
	2	5
	4	7
	5	15
	10	20

3	A	B
	5	1
	3	3
	2	8
	1	15

4	A	B
	2	4
	1	3
	4	6
	3	5

5	A	B
	6	7
	7	6
	8	12
	12	8

6	A	B
	14	7
	12	6
	8	4
	3	1

2. INDIRECT (or INVERSE) RELATIONSHIP: Two variables have an indirect (or inverse) relationship when BOTH VARIABLES ALWAYS CHANGE AT THE SAME TIME IN OPPOSITE DIRECTIONS.

When variables change in opposite directions, one variable becomes SMALLER when the other gets BIGGER, or becomes bigger when the other gets smaller. As an example, consider the DISTANCE a car travels and the VOLUME OF GASOLINE LEFT in the tank. The farther the car travels, the less gas is left. The less the distance traveled, the more gas is left. The distance and the volume of gas left in the tank are INDIRECTLY related.

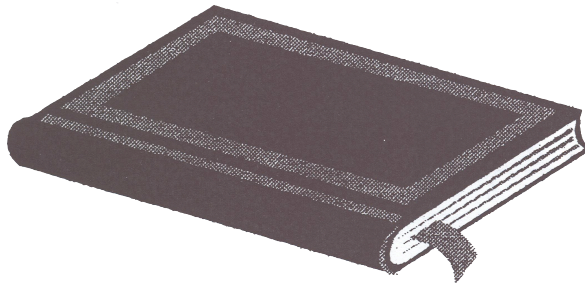
DIRECTIONS: Fill in the blanks in the examples below:

1. When two variables are indirectly related to each other, one of them gets _____ as the other one becomes _____

2. When there is an indirect relationship,

If C is  and D is 

If C changes to



draw below what happens to D



3. If variable R increases, than in an indirect relationship variable T will _____.

4. If variable X decreases, than in an indirect relationship variable W will _____.