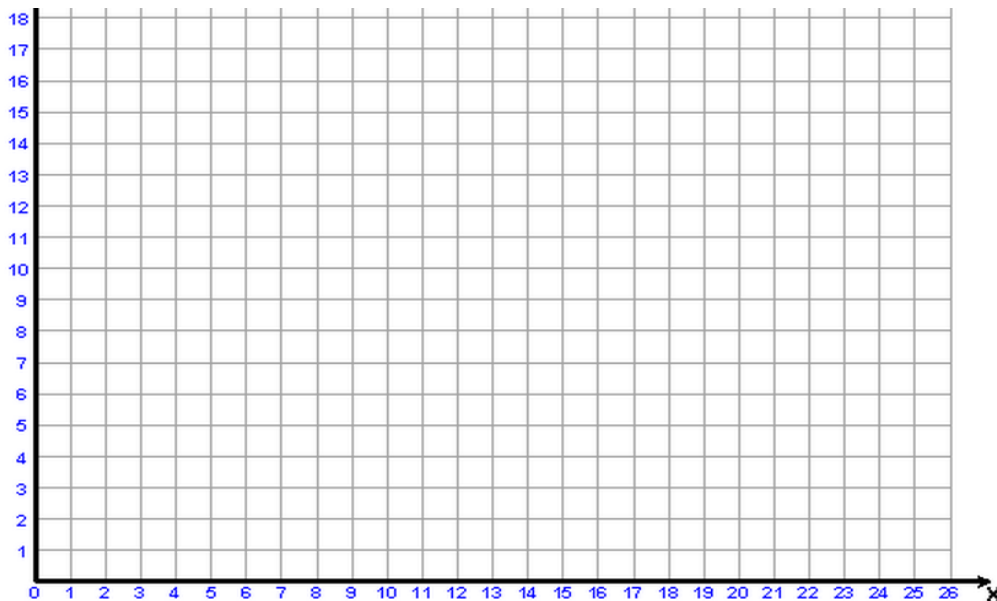


Marginal Analysis Production Table: Matt's Dead Cat Factory

- In economics, *marginal* refers to one more or less of something. The marginal output of an additional worker means the change in total output that occurs when one more worker is added to produce something. Economists often call this the *marginal product of labor*.

Number of Workers	Total Output	Marginal Output of additional ppl. <i>(How many more dead cats was the additional worker able to produce?)</i>
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

Okay, now try your hand at graphing the results. In the space below, construct a graph. Label the Y axis "Dead Cats Produced" and the X axis "Number of Workers." Connect yer dots! Draw BOTH a line and a best-fit curve. For increased challenge, try shading differently the portions that represent Increasing, Decreasing, and Negative Marginal Returns.



The Law of Diminishing Marginal Returns (Defined by Wikipedia)

In economics, **diminishing returns** (also called **diminishing marginal returns**) is the decrease in the marginal (per-unit) output of a production process as the amount of a single factor of production is increased, while the amounts of all other factors of production stay constant.

The **law of diminishing returns** (also **law of diminishing marginal returns** or **law of increasing relative cost**) states that in all productive processes, adding more of one factor of production, while holding all others constant, will at some point yield lower per-unit returns. The law of diminishing returns does not imply that adding more of a factor will decrease the *total* production, a condition known as **negative returns**, though in fact this is common.

For example, the use of fertilizer improves crop production on farms and in gardens; but at some point, adding more and more fertilizer improves the yield less per unit of fertilizer, and excessive quantities can even reduce the yield. A common sort of example is adding more workers to a job, such as assembling a car on a factory floor. At some point, adding more workers causes problems such as workers getting in each other's way or frequently finding themselves waiting for access to a part. In all of these processes, producing one more unit of output per unit of time will eventually cost increasingly more, due to inputs being used less and less effectively.

The law of diminishing returns is a fundamental principle of economics. It plays a central role in production theory.

This production graph I stole from the internet clearly shows **Increasing Marginal Returns, Diminishing Marginal Returns, and Negative Marginal returns:**

Increasing Marginal Returns:

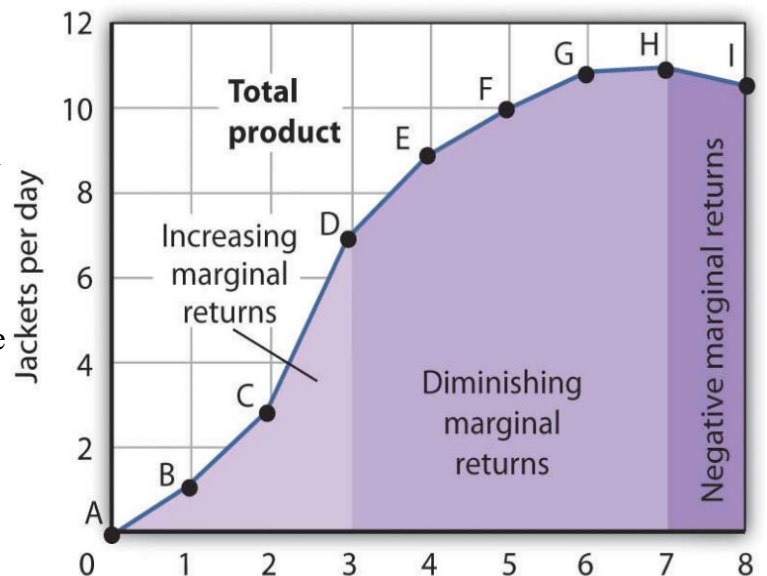
Each additional worker is increasing the overall output per worker.

Diminishing Marginal Returns:

Although each worker added is increasing the overall output (of, in this case, jackets), they are not increasing the overall output PER WORKER. *Productivity per worker is actually going down.*

Negative Marginal Returns:

Each additional worker is actually *decreasing* the overall output after this point. This is the result of at least one fixed variable (such as work space, materials, etc.)



The Law of Diminishing Marginal Returns:

In all issues related to the production of goods, adding one more factor of production while holding all others constant will at some point make overall per-unit returns go down! *Basically, you'll end up getting less stuff out per unit of stuff you put in.* Like the dead cat experiment (bless their cold, dead, ugly hearts).