

Sarah opens a sandwich shop in Godalming high street. At first she cannot afford to hire anyone else so must produce all the sandwiches herself. As the shop becomes more successful she is able to hire in addition workers to help her. Each extra worker costs her £100 in wages (per week).

List the variable costs involved in running a sandwich shop



List as many fixed costs involved in running a sandwich shop as you can (Hint: look at the items at the bottom of the page)

The table below shows the increase in the number of sandwiches made per day in the shop as the owner hires more and more labour.

Number of workers	Total output (total product)	Marginal output (marginal product)
1	100	
2	300	
3	600	
4	1000	
5	1300	
6	1100	

### Quick question

- How might you explain that the output of sandwiches is increasing, **at an increasing rate**, as the owner hires the 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> worker?
- How might you explain the fact the output of sandwiches is increasing, **at a decreasing rate**, as the owner hires the 4<sup>th</sup> and 5<sup>th</sup> worker?

Extension

- What is the danger of continuing to employ more and more workers?
- If the owner of the sandwich shop wants to continue to grow output what should she do?
- In economics what do you think is meant by the long run and short run.

