

Task

1. Identify the main components, sub-assemblies and parts of the bicycle.
2. Sketch a possible layout of the assembly plant. Evaluate what type of layout would be the best for the plant.
3. Discuss the job 'design' criteria you may want to use.
4. How much raw material, etc is needed every day. Would you order daily raw material or weekly or monthly? Don't forget; the principles of philosophy such as JIT include: NO inventory (raw material and finished goods) and minimal WIP. Would it be possible to achieve this?
5. How would you sequence the work?
6. To maintain the delivery of 4500/month for the three months otherwise there will be penalty. If the bicycles are late the following is the penalties - £2.00 for Children's bicycle, £4.00 for adult's bicycle and £5.00 for sports bicycle. You need this to calculate the profits in following questions.
7. For 'peak' time Christmas and extra shift is being considered. Discuss whether it is profitable or not. You cannot have an extra shift for more than two weeks. And cannot employ more fulltime staff.
8. Sketch the output for each calendar day for the three months on a graph – one graph for each month. The least 'bull whip' affects the better.
9. If the company makes; Children's - £20, Adult's - £40 and Sport's- £45 net profit per bike, would the company make profit in these three months? You should show clear workings, for each of these questions.