



Activity: Develop a Simple Four-Stage Manufacturing Process

You are fabricating products made by cutting, forming, and welding pieces of sheet metal. The products will all have the same shape.

# of pieces per unit	1 x Short	2 x Long	3 x Round	4 x Square
Manufacturing parts/hour	20	10	15	12

How long would it take to complete the first product? _____

Divide into four groups, one for each of the above production stages.

1. Speculate about what operations would look like after three hours of production. What would each work station look like? What might operators be doing to adapt to problems created by the work flow (assume that they each work only in their own stage of production)? How long would it take to complete any individual product after the three hour point?



Facilitator Notes:

Develop a simple four-stage manufacturing process

Components	1 x short	2 x long	3 x round	4 x square
Parts/Hour	20	10	15	12
Minutes/Part	3	6	4	5
# parts x production	1 x 3	2 x 6	3 x 4	4 x 5
Total Time	3 minutes	12 minutes	12 minutes	20 minutes

The total time to fabricate the product will be 20 minutes, the rate of the slowest process.