APPLICATIONS OF THE TRAVELING SALESMAN PROBLEM

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Each day, SUNCO manufactures four types of gasoline:

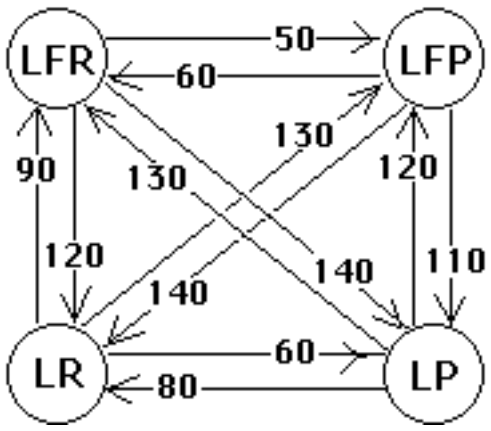
- lead-free premium (LFP)
- lead-free regular (LFR)
- leaded premium (LP)
- leaded regular (LR)

Because of cleaning and resetting of the processing equipment, the time required to produce a batch of gasoline depends on the type last produced:

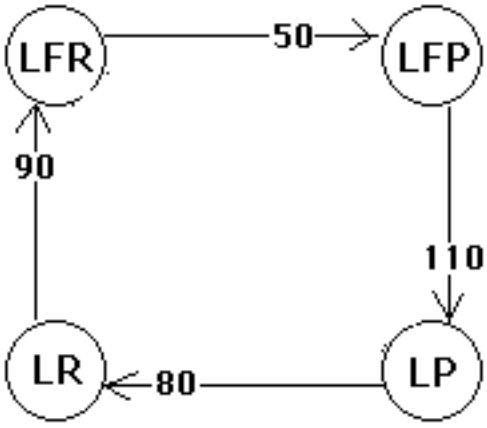
LAST-PRODUCED GASOLINE	GAS TO BE NEXT PRODUCED			
	LFR	LFP	LR	LP
LFR	--	50	120	140
LFP	60	--	140	110
LR	90	130	--	60
LP	130	120	80	--

In which order should the gasolines be produced each day?

Consider a tour of the nodes in the network:



For example, if the order of the production is as shown:



then the total production time will be
50+110+80+90
= 330 minutes

The best order will be that of the shortest "salesman's" tour!

WALLPAPER CUTTING