

Investment	Share A Mfg	Share B Mfg	Share C Food/Bev	Share D Food/Bev	Mutual Fund E	Mutual Fund Z
% of Portfolio	30%	10%	40%	10%	10%	0%
Expected Return	15.4%	19.2%	18.7%	13.5%	17.8%	16.3%
Total Expected Return (Max. Objective)			17.2% Return -->		\$15,435.00	

Amount to Invest:	\$90,000.00
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Portfolio Constraints		
Total Portfolio	100% =	100%
% Mfg Sector	40% <=	50%
Food/Bev Sector	50% <=	50%
Company Buy/in	10% <=	32%
Company Buy Total	10% <=	10%
% Company	40% <=	40%
C w/in % Mutual Funds	10% <=	10%

		Production Quantity	
Month		A	B
Qty Prod	Jan	730	790
	Feb	900	600
	Mar	1000	900
Direct Cost/Unit:		\$20.00	\$25.00
Total Costs (Min. Obj.)		\$109,864.40	

Required Resources			
Constraint	Mach. Hrs	1.50	1.60
	Man Hrs	1.10	1.20
Jan. Cap.			
Cap. Used		Cap. Av.	
Mach. Hrs	2359	<=	3000
Man Hrs	1751	<=	2500
Feb. Cap.			
Cap. Used		Cap. Av.	
Mach. Hrs	2310	<=	2800
Man Hrs	1710	<=	2300
March Cap.			
Cap. Used		Cap. Av.	
Mach. Hrs	2940	<=	3600
Man Hrs	2180	<=	2400

Bicycle A				
Month	December	January	February	March
Demand		700	900	1000
Production		730	900	1000
Prd. On Hand		830	1030	1130
Rem. Inv	100	130	130	130
		>=	>=	>=
		130	130	130

Bicycle B				
Month	December	January	February	March
Demand		800	600	900
Production		790	600	900
Prd. On Hand		910	710	1010
Rem. Inv	120	110	110	110
		>=	>=	>=
		110	110	110

Cost Calculations				
Production	Bike A	\$14,600	\$18,000	\$20,000
Production	Bike B	\$19,750	\$15,000	\$22,500
Total Production Costs		\$34,350	\$33,000	\$42,500
*Maintenance Rate/Month/Unit:			2%	
Inventory	Bike A	\$2.60	\$2.60	\$2.60
Inventory	Bike B	\$2.20	\$2.20	\$2.20
Total Maint. Costs		\$4.80	\$4.80	\$4.80

Fuel Blend Calculations				
Ingredients	Octane	Super Fuel	Unleaded	Super Unleaded
A	120	427	73	500
B	90	173	1027	0
C	130	200	0	0
Blended Octane		116.0	92.0	120.0
>=		>=	>=	>=
Standard		94	92	96

Total Raw Ingredients		
1000	<=	1000
1200	<=	1200
200	<=	700

Intermediate Octane Calculations	
Fuel Blend	Octane
92800	>= 75200
101200	>= 101200
60000	>= 48000

Raw Material Cost
\$38
\$42
\$105
Material Cost
\$109,400.00

Fuel Demand		
800	1100	500
=	=	=
800	1100	500

Fuel Revenue		
\$85	\$80	\$88
\$200,000.00		
Total Contribution		
\$90,600.00		

Fuel Blend Ratios			
Ingredient	Super Fuel	Unleaded	Super Unleaded
A	53%	7%	100%
B	22%	93%	0%
C	25%	0%	0%

Advertising Time-Slots	Expected Viewership Rate	
	Day Time	Night Time
Friday	5000	7500
Saturday	5500	8200
Sunday	5700	8400

Total Viewers
582200

Time Slots to Purchase					Daily Spot Minimum	
	Day Time	Night Time	Daily Spots			
Friday	5	18	23	>=	20	
Saturday	10	18	28	>=	20	
Sunday	12	18	30	>=	20	

Night Min.	12
50%	14
Constraint	15
<= Daily Max <=	
12	18
12	18
12	18

Time Spot Costs					Daily Budget		Total Budget
	Day Time	Night Time	Cost/Day				
Friday	\$400	\$500	\$11,000	<=	\$11,000		\$45,000
Saturday	\$450	\$550	\$14,400	<=	\$14,400		
Sunday	\$450	\$550	\$15,300	<=	\$19,600		