

		Costs	Normal DLH		Rate
Overhead	Variable	120,000	/ 30,000	=	\$4.00
	Fixed	240,000	/ 30,000	=	\$8.00
	Total	360,000	/ 30,000	=	\$12.00

			Deluxe	Economy	Cushion
Direct Labor Hours per unit			1.50	1.00	0.50
Variable Costs					
Materials		\$ 15.00	\$ 15.00	\$ 7.50	
Labor	\$ 10.00 /DLH	\$ 15.00	\$10.00	\$5.00	
Variable overhead	\$ 4.00 /DLH	\$ 6.00	\$4.00	\$2.00	
Variable costs per unit		\$ 36.00	\$29.00	\$14.50	
Fixed overhead	\$ 8.00 /DLH	\$ 12.00	\$8.00	\$4.00	
Full Cost per unit		\$ 48.00	\$37.00	\$18.50	
Markup	20.00%	\$ 9.60	\$7.40	\$3.70	
Price		\$ 57.60	\$44.40	\$22.20	
					Answer B
Contribution margin [Price - Variable costs]		\$21.60	\$15.40	\$7.70	
Contribution margin/DLH		\$14.40	\$15.40	\$15.40	

			Deluxe	Cushion	
So cut Deluxe	Hours Change		75	(75.00)	plug
	Units Change		150 =	(50.00)	
Lost Contribution = opportunity costs			50 x	\$21.60 =	\$1,080
Variable costs			150 x	14.5 =	\$2,175
Total			150	units	\$3,255
Transfer price per unit			\$3,255 /	150 =	\$21.70

Full cost plus markup transfer price			\$150.00 x	\$22.20 =	\$3,330
Difference					\$75

How? Markup for materials in cushion 20% x \$ 7.50 x 150 = \$225
 But Materials markup in lost Deluxe sales 20% x \$ 15.00 x 50 = \$150
 Difference \$75

Full cost markup minus excess materials based markup is the correct transfer price. This will always work as we are at full capacity

Cut deluxe by		units	Deluxe	Economy	Cushion
				Plug	
	Hours Change		(225)	150	75
	Units Change		(150)	150	150
	Cont Margin /unit		\$21.60	\$15.40	
Lost Contribution = opportunity costs			(\$3,240) +	\$2,310	\$930
Variable costs					\$2,175
Transfer price for	150	units			\$3,105
Transfer price per unit			\$3,105 /	150 =	\$20.70