

Healthy Body

Healthy Body manufactures and sells Gym equipment. One of its manufacturing plants manufactures two different stationary bicycle models: Economic and Deluxe. The latter has a more robust frame, a cushioned seat, and a variety of electronic devices, which allow to monitor the heart rate, calories burned, mileage, etc. The following information was available at the beginning of the year:

	Economic Model	Deluxe Model
Production Quantity	20,000	10,000
Selling Price	\$90.00	\$180.00
Prime Costs	\$40.00	\$80.00
Machine Hours	5,000	5,000
Direct Labour Hours	10,000	10,000
Engineering support (Hours)	1,500	4,500
Reception of materials (# of processed orders)	250	500
Materials handling (# of movements)	2,000	4,000
Purchases (# of requisitions)	100	200
Maintenance (hours used)	1,000	3,000
Payment to suppliers (# of processed invoices)	250	500
Setups (# of batches)	20	60

In addition, the following manufacturing overhead costs were reported:

Maintenance	\$84,000
Engineering support	120,000
Materials handling	120,000
Setups	96,000
Purchases	60,000
Reception of materials	40,000
Accounts payable	30,000
Manufacturing space	20,000
	\$570,000

Plant-level costs are allocated based on machine hours.

Required:

1. Calculate the unit manufacturing cost for each model using direct labour hours to allocate the manufacturing overhead costs.
2. Calculate the unit manufacturing cost for each model using activity-based costing.