

Answer to Question #1

First, let's calculate the depreciation schedule:

Year	MACRS Percentage	Depreciation Expense
1	20.00%	\$16,000
2	32.00%	\$25,600
3	19.20%	\$15,360
4	11.52%	\$9,216
5	11.52%	\$9,216
6	5.76%	\$4,608

The After-tax Salvage Value = $\$12,000 - (\$12,000 - \$4,608) * 0.35 = \$9,412.8$

Year	0	1	2	3	4	5
Increase in Earnings before Depreciation and Taxes		\$22,000	\$22,000	\$22,000	\$22,000	\$22,000
After-tax increase in Earnings		\$14,300	\$14,300	\$14,300	\$14,300	\$14,300
Depreciation		\$16,000	\$25,600	\$15,360	\$9,216	\$9,216
Depreciation Tax-savings		\$5,600	\$8,960	\$5,376	\$3,225.6	\$3,225.6
Change in Operating Cash-flows		\$19,900	\$23,260	\$19,676	\$17,525.6	\$17,525.6
Change in Net Capital Spending	-\$80,000					\$9,412.8
Change in NWC	0					0
Change in CFFA	-\$80,000	\$19,900	\$23,260	\$19,676	\$17,525.6	\$26,938.4

NPV at 8% = \$5,202.73.

Therefore, AJ Incorporated should buy the new machine.