Ainsley Corporation has four operating divisions. The budgeted revenues and expenses for each division for 2014 follows:

	Division			
	A	B	C	D
Sales	$504,000	$ 948,000	$960,000	$1,240,000
Cost of goods sold	440,000	930,000	765,000	925,000
Selling, general, and administrative expenses	96,000	202,500	144,000	210,000
Operating income/loss	$ (32,000)	$(184,500)	$ 51,000	$ 105,000

Further analysis of costs reveals the following percentages of variable costs in each division:

Cost of goods sold	90%	80%	90%	85%
Selling, general, and administrative expenses	50%	50%	60%	60%

Closing down any division would result in savings of 40% of the fixed costs of that division.

Top management is very concerned about the unprofitable divisions (A and B) and is considering closing them for the year.

Required:

1. Calculate the increase or decrease in operating income if Ainsley closes division A.

2. Calculate the increase or decrease in operating income if Ainsley closes division B.

3. What other factors should the top management of Ainsley consider before making a decision?

Papa’s Pizza is considering replacement of its pizza oven with a new, more energy-efficient model. Information related to the old and new pizza ovens follows:

Old oven—original cost	$60,000
Old oven—book value	$50,000
Old oven—current market value	$42,000
Old oven—annual operating cost	$14,000
New oven—purchase price	$75,000
New oven—installation cost	$ 2,000
New oven—annual operating cost	$ 6,000

The old oven had been purchased a year ago. Papa’s Pizza estimates that either oven has a remaining useful life of five years. At the end of five years, either oven would have a zero salvage value. Ignore the effect of income taxes and the time value of money.

Required:

1. Which of the costs and benefits above are relevant to the decision to replace the oven?

2. What information is irrelevant? Why is it irrelevant?

3. Should Papa’s Pizza purchase the new oven? Provide support for your answer.

4. Is there any conflict between the decision model and the incentives of the manager who has purchased the “old” oven and is considering replacing it a year later?

5. At what purchase price would Papa’s Pizza be indifferent between purchasing the new oven and continuing to use the old oven?