# QSO 520 Module One Homework Questions

1. (P1-21) A manufacturer is evaluating options regarding his production equipment. He is trying to decide whether he should refurbish his old equipment for $70,000, make major modifications to the production line for $135,000, or purchase new equipment for $230,000. The product sells for $10, but the variable costs to make the product are expected to vary widely, depending on the decision that is to be made regarding the equipment. If the manufacturer refurbishes, the variable costs will be $7.20 per unit. If he modifies or purchases new equipment, the variable costs are expected to be $5.25 and $4.75, respectively.

(a) Which alternative should the manufacturer choose if it the demand is expected to be between 30,000 and 40,000 units?

(b) What will be the manufacturer’s profit if the demand is 38,000 units?

2. (P1-22) St. Joseph’s School has 1,200 students, each of whom currently pays $8,000 per year to attend. In addition to revenues from tuition, the school receives an appropriation from the church to sustain its activity. The budget for the upcoming year is $15 million, and the church appropriation will be $4.8 million. By how much will the school have to raise tuition per student to keep from having a shortfall in the upcoming year?