

PROBLEM SET TWO

In many cases answers to the problems below require only a brief statement. In other cases a more elaborate statement is required. You determine what you think is needed.

13. What is the future value of \$100 invested today for 100 years with simple interest if the interest rate is 10%? What is the value if compounding is annual?

15. The City of Tacoma is considering adopting a motorcycle helmet law. This law will reduce injury and death from accidents involving motorcycles. When motorcyclists are injured and are uninsured local hospitals bear the cost of treatment in cases where the cyclist can not pay.
 - a. If you enjoy riding your motorcycle without your helmet, what are the costs and benefits of the proposed ordinance from your perspective?
 - b. What are the benefits and costs from the standpoint of the entire community?

16. You are considering performing a benefit-cost analysis of building a new football stadium. What is the first step in the analysis? [The answer requires only one sentence.]

17. Why does Zerbe call the subject benefit-cost analysis and not cost-benefit analysis?

18. You buy a house in Seattle for \$250,000. You obtain a 30 year mortgage at a fixed rate of 8%. You make a down payment of 20%.
 - a. What are your monthly payments?
 - b. Create an amortization table showing declining principle, interest and principal payments for each month for the first 10 years only.
 - c. What is the total amount you will pay over the life of the loan?
 - d. Suppose instead you paid off the mortgage in 15 years and by doing this received an interest rate of 5%. How would the total paid compare with the 30 year mortgage?
 - e. What important financial aspect of mortgage finance are we ignoring in this problem (think of the IRS)?