15. Design an algorithm to find the weighted average of four test scores. The four test scores and their respective weights are given in the following format: (9)

```
testScore1 weightTestScore1
...
```

For example, sample data is as follows:

```
75 0.20
95 0.35
85 0.15
65 0.30
```

16. Design an algorithm to convert the change given in quarters, dimes, nickels, and pennies into pennies. (9)

17. Given the radius, in inches, and price of a pizza, design an algorithm to find the price of the pizza per square inch. (9)

18. To make a profit, the prices of the items sold in a furniture store are marked up by 80%. After marking up the prices, each item is put on sale at a discount of 10%. Design an algorithm to find the selling price of an item sold at the furniture store. What information do you need to find the selling price? (9)

20. Tom and Jerry opened a new lawn service. They provide three types of services: mowing, fertilizing, and planting trees. The cost of mowing is $35.00 per 5000 square yards, fertilizing is $30.00 per application, and planting a tree is $50.00. Write an algorithm that prompts the user to enter the area of the lawn, the number of fertilizing applications, and the number of trees to be planted. The algorithm then determines the billing amount. (Assume that the user orders all three services.) (9)

21. Jason typically uses the Internet to buy various items. If the total cost of the items ordered, at one time, is $200 or more, then the shipping and handling is free; otherwise, the shipping and handling is $10 per item. Design an algorithm that prompts Jason to enter the number of items ordered and the price of each item. The algorithm then outputs the total billing amount. Your algorithm must use a loop (repetition structure) to get the price of each item. (For simplicity, you may assume that Jason orders no more than five items at a time.) (9)

24. A student spends a majority of his weekend playing and watching sports, thereby tiring him out and leading him to oversleep and often miss his Monday 8 AM math class. Suppose that the tuition per semester is $25,000 and the average semester consists of 15 units. If the math class meets three days a week, one hour each day for 15 weeks, and is a four unit course, how much does each hour of math class cost the student? Design an algorithm that computes the cost of each math class. (9)