Problem of the Week
Problem B and Solution
Write On!

Problem

Victoria's university English teacher Mr. McTuffie has told her she will have 27 assignments this semester. Victoria has discovered that she needs to spend 3.5 hours on each assignment, and has decided to alternate between doing two assignments the first week and three assignments the next week.

   a) How many hours will Victoria spend on her English assignments in the first four weeks?

   b) What is the total time she will spend on her assignments?

   c) How many weeks will it take Victoria to complete her assignments?

Solution

   a) Since Victoria does 2 assignments one week and 3 the next, in the first four weeks she will have done $2 + 3 + 2 + 3 = 10$ assignments.

      If each assignment takes 3.5 hours, she will have spent $3.5 \times 10 = 35$ hours on her English assignments in the first four weeks.

      <u>An alternate solution</u>

      For the first week she will spend $2 \times 3.5 = 7$ hours. The second week she will spend $3 \times 3.5 = 10.5$ hours. Therefore the total time spent in the first four weeks would be $7 + 10.5 + 7 + 10.5 = 35$ hours.

   b) On 27 assignments, she will spend a total of $27 \times 3.5 = 94.5$ hours.

   c) Since Victoria does 5 assignments every two weeks, the following table shows that she will do 25 assignments in 10 weeks. The next week, she will do 2 assignments, completing the 27. So, it will take her a total of 11 weeks.

Number of Weeks	Number of Assignments
2	5
4	10
6	15
8	20
10	25

      <u>An alternate solution</u>

      Since Victoria does 5 assignments every two weeks, after 10 weeks, she will have done $5 \times 5 = 25$ assignments. The next week, she will do 2 assignments, completing the 27. So, it will take her a total of 11 weeks.