

## **MATH 091: Elementary Algebra I**

### **Application of Linear Equations**

#### **GRADES:**

To establish consistency among its thirty five fulltime faculty members and twenty adjunct instructors, the Developmental Mathematics Department at an institution established uniform guidelines for student assessment. The department agreed to evaluate only based on tests, quizzes, and the final exam. The sum between the point values for the quizzes and Final Exam is the same as the total points for all tests. To determine the number of tests, and quizzes a faculty member gives, the department head uses the formula  $P_1x = P_2(10 - x) + F$ , where  $P_1$  is the point value of each test,  $P_2$  is the point value of each quiz,  $x$  is the number of tests given and  $F$  is the point value of the final exam.

1. In Professor Watson's class, each test was worth 60 points and each quiz was worth 10 points, if his Final exam is worth 110 points, find how many tests Professor Watson gave?
2. In Dr. Riley's Beginning Algebra class, he decided to give five tests and have each test worth 40 points. He also made each quiz worth 10 points. Determine the worthiness of her Final exam?
3. There were rumors floating that Professor Rao's tests were worth significantly low compared to the other faculty. Checking on these rumors, it was determined that Professor Rao gave 4 tests and each of his quiz was worth 5 points and the Final exam was worth 90 points. Find the point value of each test in Professor Rao's class.
4. Adjunct Professor Palmer was always keen on his Final being worth 200 points. If he decides to give five tests and each of his quizzes will be worth 12 points, find the point value for each of his tests?
5. Cathy Fernandez, a new instructor was not too pleased with the structure of the course grading system at the department. She was a faculty member who never believed in giving a Final exam. If her philosophy is permitted, how many tests must she give, if each test is worth 120 points and each quiz is worth 30 points?
6. How many quizzes did Dr. Kelly Johnson give, if each of her tests and quizzes were worth 60 points and the Final exam was worth 100 points?