UNIT 14 EXERCISES 11-15

SYSTEM OF EQUATIONS

1999

11. The student lockers at Olympic High are numbered consecutively beginning with locker number 1. The plastic digits used to number the lockers cost two cents apiece. Thus, it costs two cents to label locker number 9 and four cents to label locker number 10. If it costs \$137.94 to label all the lockers, how many lockers are there at the school?

(A) 2001 (B) 2010 (C) 2100 (D) 2726 (E) 6897

2006A 14. Two farmers agree that pigs are worth \$300 and that goats are worth \$210. When one farmer owes the other money, he pays the debt in pigs or goats, with "change" received in the form of goats or pigs as necessary. (For example, a \$390 debt could be paid with two pigs, with one goat received in change.) What is the amount of the smallest positive debt that can be resolved in this way?

(A) \$5 **(B)** \$10 **(C)** \$30 **(D)** \$90 **(E)** \$210

2006B 14. Elmo makes N sandwiches for a fundraiser. For each sandwich he uses B globs of peanut butter at 4¢ per glob and J blobs of jam at 5¢ per blob. The cost of the peanut butter and jam to make all the sandwiches is \$2.53. Assume that B, J, and N are positive integers with $N > 1$. What is the cost of the jam Elmo uses to make the sandwiches?

(A) \$1.05 **(B)** \$1.25 **(C)** \$1.45 **(D)** \$1.65 **(E)** \$1.85