Eight Problems

1. A tramp knows that there is enough tobacco in four cigarette butts to make one cigarette. How many cigarettes could he make from 28 butts?

2. A farmer surrounded his square melon patch with a ditch 10 feet wide and 20 feet deep. However, with only two 9 foot 11 inch planks, thieves bridged the ditch and stole the melons. How were they able to do this?

3. Larry, Moe, and Curly played a game three times. For each game, one was a loser and two were winners. The loser had to double the points each winner had by taking points away from his own score and giving them to the winners. Each boy won twice and lost once and they each had 40 points at the end. How many points did each boy have to start?

4. 500 students at High School for Capable Students participated in a math project. They all gathered in the school auditorium and sat down. In step 1 of the project, every student stood up. In step 2, every second student sat down. In step 3, every third student reversed her position (that is, if she was standing, she sat and if she was sitting, she stood). In step 4, every fourth student reversed her position, and so on until the 500th step, when the 500th student reversed her position. Can you figure out which students were left standing?

5. There are six oranges in a box. Without cutting any of them, divide them among six boys in such a way that one orange is left in the box.

6. If a hundred horses eat 100 tons of corn in 100 days, how many tons of corn will ten horses eat in 10 days?

7. The following equation, in Roman numerals, says that six plus two equal five. Can you correct it by moving only one line?
   VI + II = V

8. Two men play a card game and the stake is one dollar per game. At the end, one has won three dollars and the other has won three games. How many games did they play?