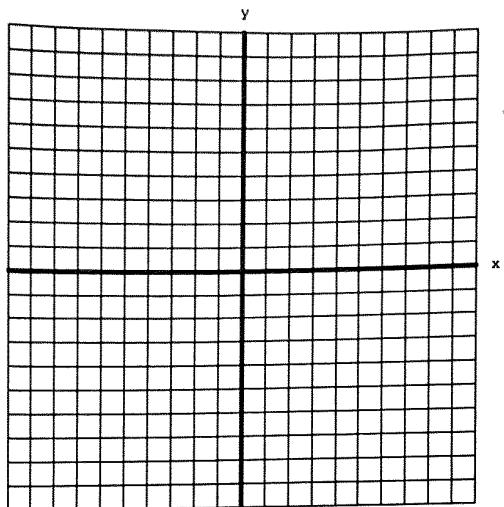


1. Your English teacher is giving you a test worth 200 points containing only 6 questions. There are some short answer questions that are worth twenty-five points each and there are some essay questions that are worth fifty points each. How many of each type of question are there on the test?



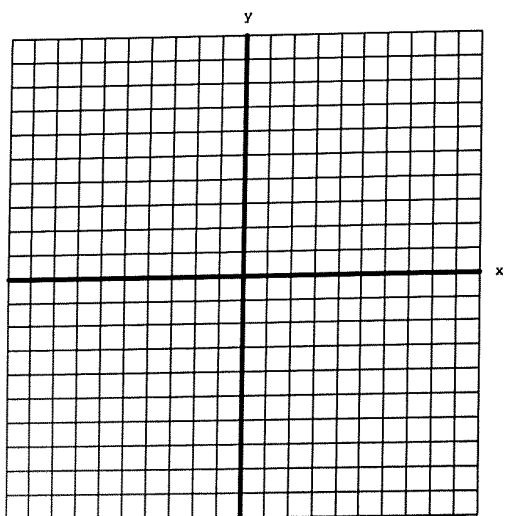
$$x + y = 6$$

$$25x + 50y = 200$$

(4, 2)

4 25 point short answer questions
2 50 point essay questions

2. You spent the day with your nieces. You bought 4 tickets to the drive-in and 2 tickets to the museum, and paid \$70. Your friend joined you and she bought 2 tickets for the drive-in and 4 tickets for the museum, and she paid \$80. How much were one ticket to the drive-in and one ticket to the museum?



$$4x + 2y = 70$$

$$2x + 4y = 80$$

$$2y = -4x + 70$$

$$y = -2x + 35$$

$$4y = -2x + 80$$

$$y = -\frac{1}{2}x + 20$$

(10, 15)

10 drive-in tickets

15 museum tickets

3. Farmer Peter and Farmer Sarah are picking apples from their apple trees. Farmer Peter has already picked 287 apples. Farmer Peter picks another 5 apples each minute. Farmer Sarah has already picked 154 apples. Farmer Sarah picks another 6 apples each minute.

- a. How many minutes will it take before Peter and Sarah have the same number of apples? **133 min.**
b. How many apples will they have at that time? **952 apples**

$$P: y = 5x + 287 \quad (133, 952)$$

$$S: y = 6x + 154$$

4. You buy 5 bags of chips and 9 bags of pretzels for \$16.95. Later you buy 10 bags of chips and 10 bags of pretzels for \$25.50.

- c. How much does each bag of chips cost? **\$1.50**
d. How much does each bag of pretzels cost? **\$1.05**

$$5x + 9y = 16.95$$

$$10x + 10y = 25.50$$