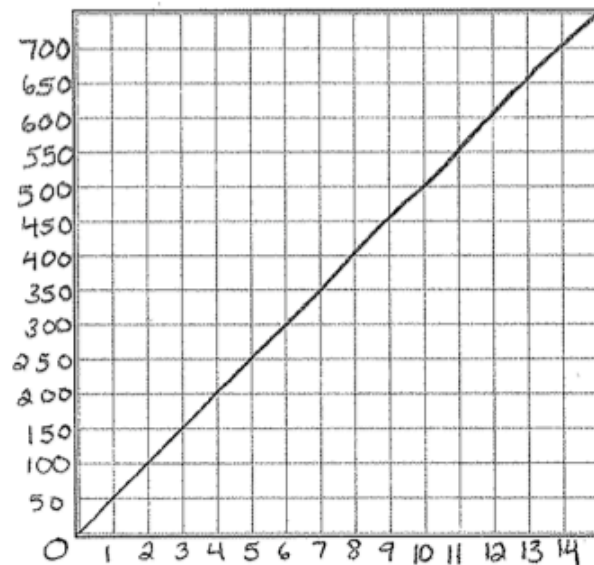




The PTA is raising money by hosting a dodge ball tournament. It costs each team \$50.00 to register to compete in the tournament and \$4.50 for each spectator to watch the tournament.

1. Create a table and a graph to show the income the PTA will make from team registration fees.

# of teams	Money
1	\$ 50.00
2	\$ 100
3	\$ 150
4	200
5	250
6	300
7	350
8	400
9	450
10	500
11	550
12	600
13	650
14	700



2. Write an equation that relates the number of teams (t) to the income from registration fees (R). Explain your equation.

$$t \times 50 = R$$

3. How can you tell that this is a proportional relationship by looking at your graph? (The following student explanations are each partially correct. A correct answer would include both explanations.)

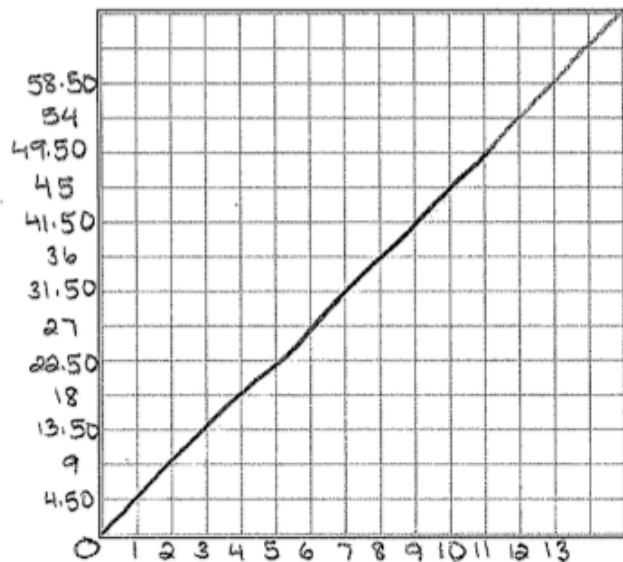
Student 1: "It goes up by the same amount each time. If you divide y by x it always equals 50."

Student 2: "Because the y intercept is 0."

4. Create a table and a graph to show the income the PTA will make from door receipts.

Spectators Cost

0	0
1	4.50
2	9
3	13.50
4	18
5	22.50
6	27
7	31.50
8	36
9	41.50
10	45
11	49.50
12	54
13	58.50



5. Write an equation that relates the number of spectators (s) to the income from door receipts (D). Explain your equation.

$$4.50s = D$$

6. How can you tell that this is a proportional relationship by looking at your table? (The following student explanations are each partially correct. A correct answer would include both explanations.)

Student 1: "Yes because the y-intercept is 0."

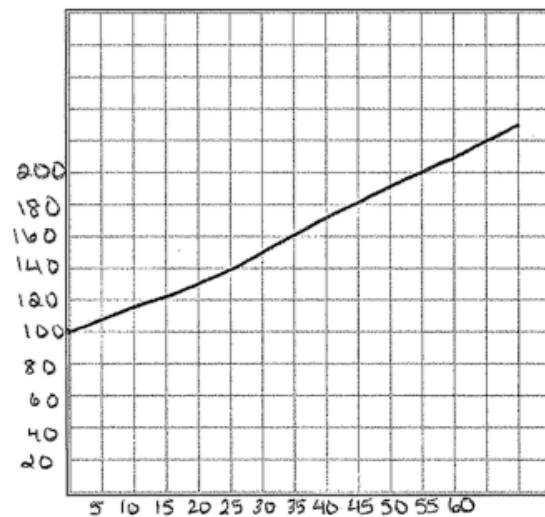
Student 2: "Because it is going up at a steady even rate."



The PTA dodge ball tournament expenses include \$100 for team trophies and \$1.25 for each player's participation medal.

7. Complete the following table and create a graph to show the total amount of dodge ball tournament expenses.

Number of Players	Total Expense
0	100
5	106.25
10	112.50
15	118.75
20	125.00
25	131.25
30	
35	
40	
45	
50	
55	
60	



$$\begin{array}{r} 1.2 \\ 125 \\ \hline 6.25 \end{array}$$

8. Write an equation that relates the number of players (p) to the total amount of expenses (E). Explain your equation.

$$E = 1.25p + 100$$

9. Is this a proportional relationship? Explain your reasoning.

"No, it goes up by the same amount each time, but its y intercept is 100."