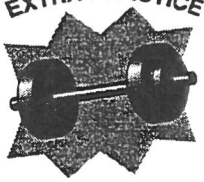
Name: _____

Group: _____ Date: _____

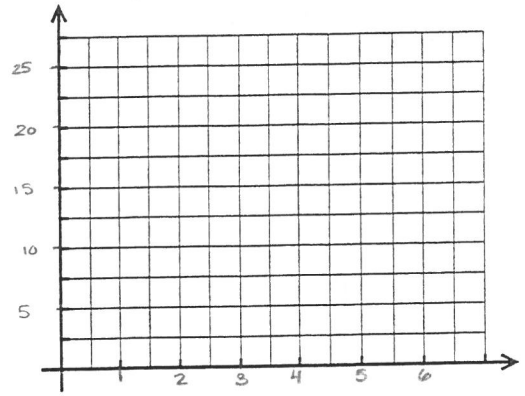
EXTRA PRACTICE



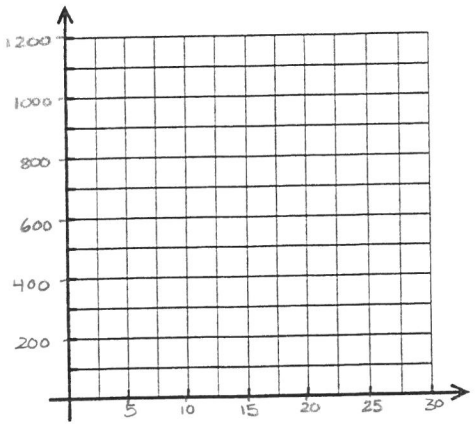
Objective 8.1 To solve a system of linear relations graphically.

Chapter 3

1. Caroline can choose between babysitting Sylvia's children at an hourly rate of $5 or babysitting Lucy's children. Lucy pays her $5 for her travel expenses plus $4 per hour. Draw a graph to show how many hours that Caroline would have to babysit to have the same income.

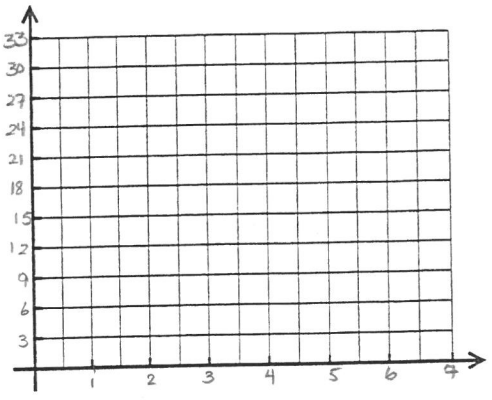


2. Swimming pool A, containing 1200 L of water, is emptied at the rate of 50 L per minute. Swimming Pool B, containing 1000 L of water, is emptied at the rate of 40 L per minute. Show graphically, how many minutes it would take for both pools to contain the same amount of water.



3. Two relations are represented by the following table of values.

x	Y_1	Y_2
1	2	30
2	4	27
3	6	24
4	8	21
5	10	18
6	12	15
7	14	12



a) On a graph, plot the points associated with each relation.

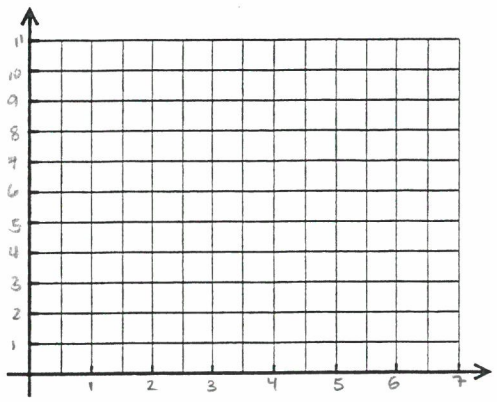
b) Draw two lines to represent the relations.

c) Estimate the solution. _____

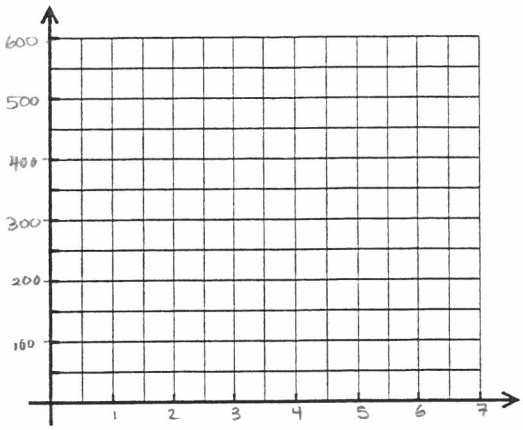
4. Given the following system of linear relations:

$Y_1 = 2x - 3$
$Y_2 = x + 2$

Solve this system graphically.



5. Mark and Nancy have \$200 and \$500, respectively, in their bank accounts. Each month Nancy withdraws \$25 while Mark deposits \$25. In how many months will they have equivalent sums in the bank? Solve this problem graphically.



6. One linear relation has an initial value of 14 and a rate of variation of 5 for the values of x less than or equal to 8. For x greater than 8, the rate of variation is 4. A second linear relation has a rate of variation of 6 and an initial value of 0. Solve the system graphically.