PROBLEM SOLVED

MAKING SENSE OF MATHEMATICS

Create a table and graph to represent and solve each problem. Use the table and graph to develop an algebraic equation that represents the problem. Check your answer by substituting your numerical solution into the algebraic equation.

1. Carpet Store A charges $4 per square foot for a certain carpet and adds an installation fee of $80. Carpet Store B charges $2 per square foot for the same carpet with an installation fee of $140. How many square feet of carpet would you need to purchase so the total cost is the same at both stores?

Table

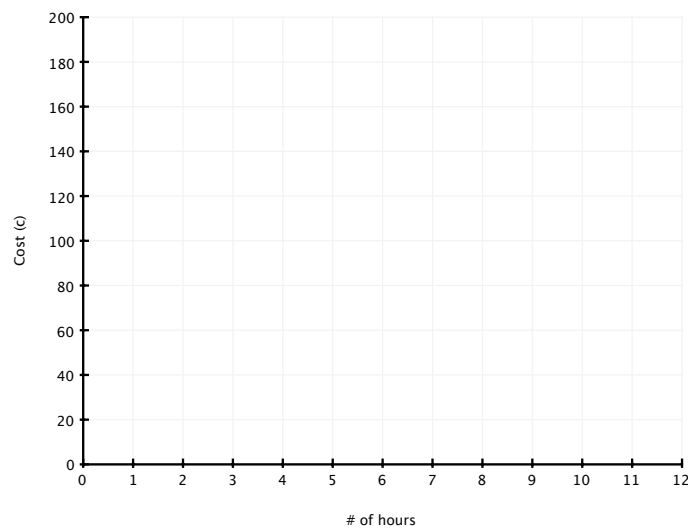| # of Square Feet	Cost at Store A	Cost at Store B

Graph

Equation

MakingSense
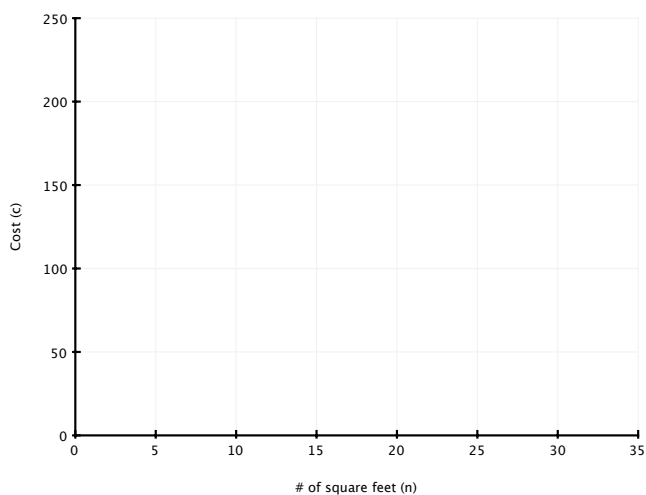
2. The Heartland Area Tennis Club charges a $55 membership fee plus $12 for each hour of court time. The Raccoon Valley Tennis Club charges $25 for membership plus $15 for each hour of court time. How many hours of court time would result in costs being the same at both clubs?

Table

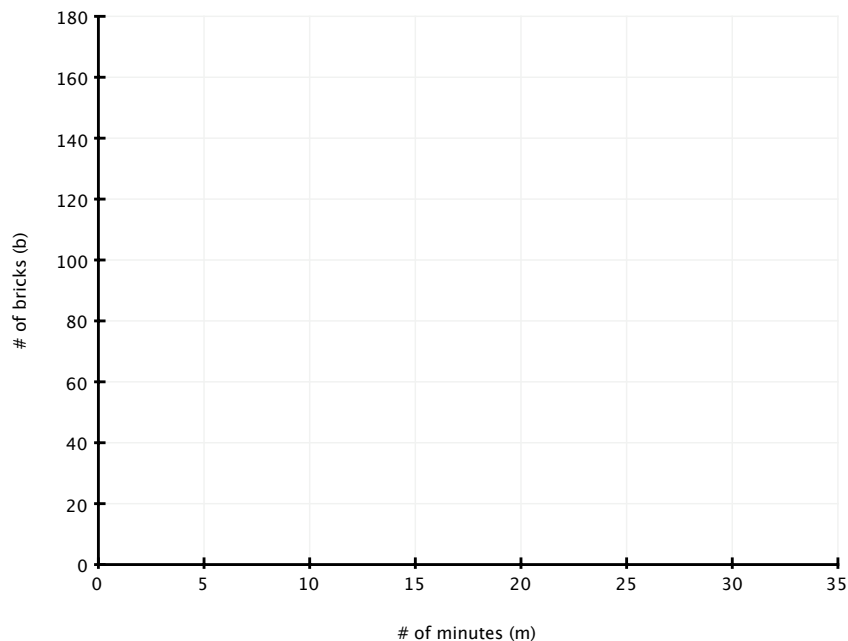| Hours of Court Time	Cost at Heartland Area	Cost at Raccoon Valley

Graph

Equation

3. Joan and Brett are bricklayers involved in constructing a new garage. Joan can lay bricks at the rate of 5 bricks per minute, and Brett can lay bricks at the rate of 3 bricks per minute. Both bricklayers are picking up from where they were the day before. Joan had been working on a wall where each row contained 10 bricks, and she had completed 2 rows. Brett was working on another wall where each row also contained 10 bricks, and Brett had completed 8 rows. If they begin working at the same time and continue non-stop, how long will it be before they each have laid the same number of bricks? How many total bricks would each wall contain at that time?

Table

number of minutes (m)	number of bricks laid by Joan	number of bricks laid by Brett

Graph

Equation