**Chapter 12: Modeling with Linear Systems**

**Lesson 12.1: Creating Systems of Linear Equations**

**Example 1:**

Video streaming service Atomic Stream charges $10 for membership and $1.00 for each movie download. Blitz Video charges $15 for a membership and $0.50 per movie download. How many movies would you need to download for the services to have identical costs? What is that cost?

**Example 2:**

One cable television provider has a $60 setup fee and charges $80 per month, and another cable provider has a $160 equipment fee and charges $70 per month.

**Example 3:**

|  |  |  |
| --- | --- | --- |
| **Mulch (Cubic Yards)** | **Yard Depot** | **Lawn and Garden** |
| 1 | 60 | 80 |
| 2 | 90 | 105 |
| 3 | 120 | 130 |
| 4 | 150 | 155 |

**Example 4:**

Use the graph to make a linear model of each function.