4.6 Determining Values in Linear Relations

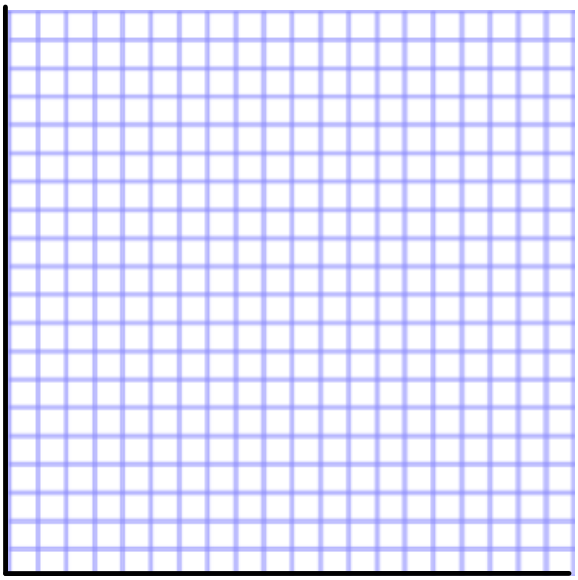
Ex. 1

Amelia earns $8/hr. She wants to have $163 to buy a new spring jacket. How many hours does she have to work to earn that amount?

Method 1:
Make a table.

Time Worked (h)	Earnings ($)

Method 2:
Make a graph.



Method 3:
Use an equation.

Ex. 2

A chocolate bar is 20 cm long.
Peter really likes chocolate and
eats the bar at a rate of 0.5 cm/sec.

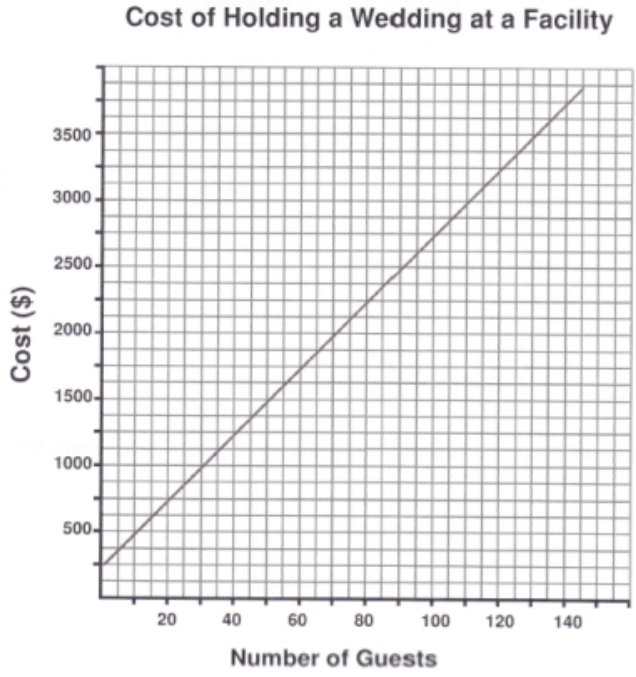
a) Write an equation for the length of the bar, L, in cm, after t seconds.

b) How long does it take for Peter to eat half of the chocolate bar?

Ex. 3: Bluebook page 175.

6.1.3: Working with Equations

Jenise has inquired about the cost of renting a facility for her wedding. She used the data she received to draw the graph below.



1. Jenise said the graph shows a linear relationship. Justify Jenise's answer.

2. Does this relation represent a direct or partial variation? Explain your answer.

3. State the initial value and calculate the rate of change of this relation.

6.1.3: Working with Equations (continued)

4. Use the graph to complete the table of values:

Number of Guests	Cost ($)
10	
	1250
110	
	2500
0	
	3500
30	

5. Determine an equation for the relationship.

6. Solve the above equation to determine the number of guests Jenise could have for $1750. Verify your answer using the graph.

7. Solve the equation to determine the cost for 175 guests. Show your work.

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Note: Answer for #4 in text is partly wrong. The table is incorrect for 'n' and the graph should have a dashed line as data is discrete.