


Lesson Objectives (p. 654):

Key Concepts

1. Translating Between Multiple Representations. (p. 656)

TRANSLATING BETWEEN MULTIPLE REPRESENTATIONS	
When given a(n). . .	Try to. . .
Table	
Graph	
Equation	
Verbal Description	



Multiple Representations of Functions



Lesson Objectives (p. 654):

translate between the various representations of functions; solve problems

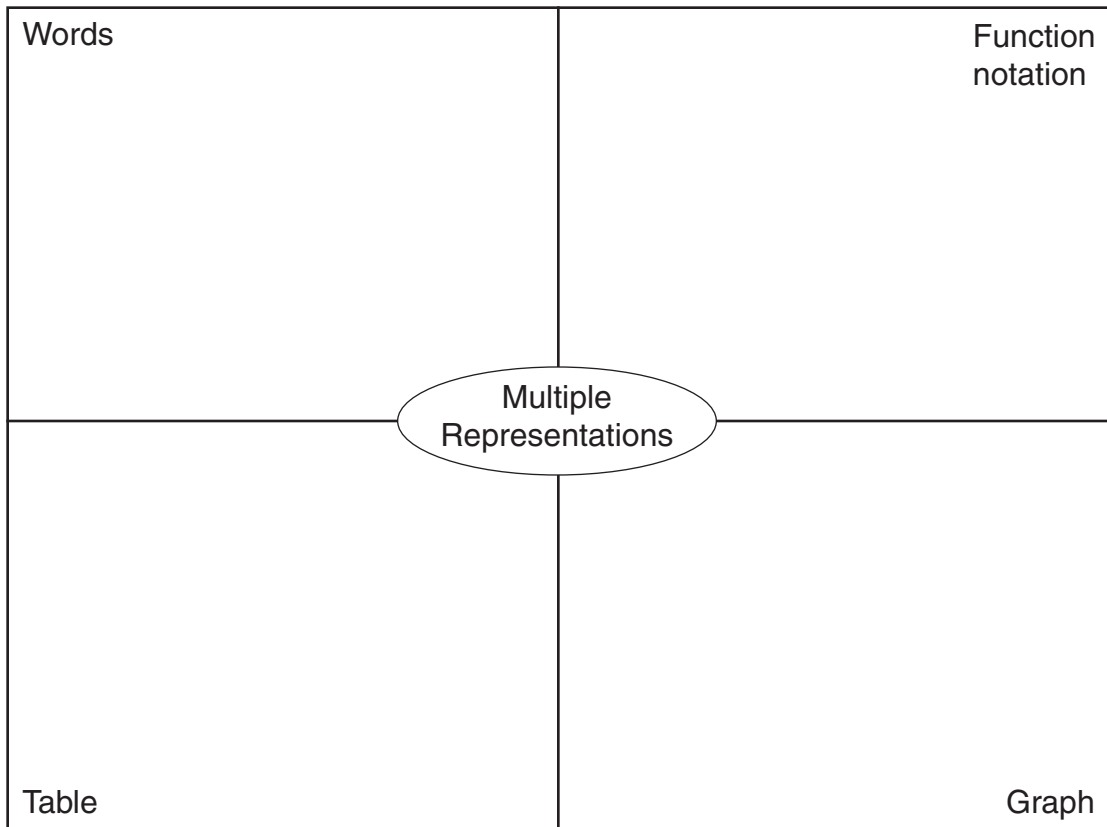
using the various representations of functions.

Key Concepts

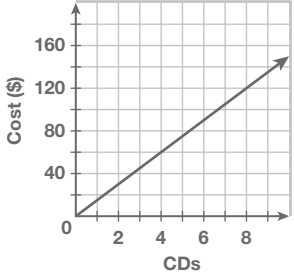
1. Translating Between Multiple Representations. (p. 656)

TRANSLATING BETWEEN MULTIPLE REPRESENTATIONS	
When given a(n). . .	Try to. . .
Table	<ul style="list-style-type: none"> • Find finite differences or ratios to determine which parent function best describes the data. • Graph points as ordered pairs and look for a pattern. • Match the data to the related parent function, if applicable, and perform a regression.
Graph	<ul style="list-style-type: none"> • Identify which parent function the graph most resembles, and then use key points (intercepts, maxima, minima, and so on) from the graph to help write an equation. • Locate several points on the graph and write them in a table. • Use slope; increasing, decreasing, or constant intervals; and intercepts to write a verbal description.
Equation	<ul style="list-style-type: none"> • Make a table of values. You may use a graphing calculator. • Make a graph by using transformations of parent functions or a graphing calculator.
Verbal Description	<ul style="list-style-type: none"> • Identify dependent and independent variables, and write an algebraic equation. • Generate a table of values by using the pattern described. • Sketch a graph of the situation by using hints from the description about increasing, decreasing, or constant intervals, as well as intercepts.

2. Get Organized In each box, give an example. (p. 658).



2. Get Organized In each box, give an example. (p. 658).

<p>Words</p> <p>Each CD costs \$15.</p>	<p>Function notation</p> <p style="text-align: center;">$C(n) = 15n$</p>												
<p>Multiple Representations</p>													
<table border="1" style="margin: auto; border-collapse: collapse; text-align: center;"> <thead> <tr> <th style="padding: 5px;">CDs</th> <th style="padding: 5px;">Cost (\$)</th> </tr> </thead> <tbody> <tr><td style="padding: 5px;">1</td><td style="padding: 5px;">15</td></tr> <tr><td style="padding: 5px;">2</td><td style="padding: 5px;">30</td></tr> <tr><td style="padding: 5px;">3</td><td style="padding: 5px;">45</td></tr> <tr><td style="padding: 5px;">4</td><td style="padding: 5px;">60</td></tr> <tr><td style="padding: 5px;">5</td><td style="padding: 5px;">75</td></tr> </tbody> </table> <p>Table</p>	CDs	Cost (\$)	1	15	2	30	3	45	4	60	5	75	 <p>Graph</p>
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