

Math 8 LG 12

LINEAR RELATIONS



INTRODUCTION:

One of the strengths of mathematics is showing the relationship between two different sets of data on a graph. Drawing graphs makes it much easier to clearly see the relationships when working with data. Read more about it on Chapter 9 Opener page 328.



LEARNING GUIDE EXPECTATIONS:

On the completion of this learning guide you will be able to:

- 1) recognize patterns and analyse data in a table of values.
- 2) graph two-variable linear relations.
- 3) solve problems using linear relations.



EVALUATION:

You are ready to progress to the next learning guide when you can demonstrate your understanding of the above expectations. Please refer to your Mathematics 8 Marks Record Sheet to determine the assessment.



RESOURCES NEEDED:



Math Links 8 Text



THSS Math 8 Learning Guides and Math 8 Journal Entries Package

LEARNING ACTIVITIES:



Expectation #1: Recognize patterns and analyse data in a table of values.



1. [Watch and take notes on instructional video on Recognizing Patterns From a Graph or Table of Values.](#)



2. In the Math Links 8 text, read the first two paragraphs on Chapter 9 Section 9.1 page 332 as well as the “Literacy Links” on the sides of pages 332-333.



3. In your math journal, complete the journal entry for LG12 Expectation 1 using the table of values information (in the red “thinking cloud”) on page 333, as well as the Key Ideas on page 336 to help you.



4. In the Math Links 8 text, work through Examples 1 and 2 on Chapter 9 Section 9.1 pages 334-335 and carefully read Key Ideas on page 336. Now complete #6-10, 15, 17 on pages 338-340.



Expectation #2: Graph two-variable linear relations.



1. [Watch and take notes on instructional video on Creating a Graph from a Table of Values.](#)



2. In the Math Links 8 text, work through Example 1 on Chapter 9 Section 9.2 page 344. Now complete #4, 6, 7 on pages 348-349.
3. In the Math Links 8 text, work through Example 2 on Chapter 9 Section 9.2 pages 345. Now complete #8, 20 on pages 349-351.



Expectation #3: Solve problems using linear relations.



1. [Watch and take notes on instructional video on Solving Problems Involving Linear Relations.](#)



2. In the Math Links 8 text, work through Example 3 on Chapter 9 Section 9.2 pages 346. Now complete #10, 11, 16, 17, 18 on pages 349-350.
3. In the Math Links 8 text, read the first paragraph on Chapter 9 Section 9.3 page 352 and carefully work through Example 1 on pages 353-354. Now complete # 5, 6. on page 357.



4. In your math journal, complete the journal entry for LG12 Expectations 2 and 3 using Example 2 part (c) on Chapter 9 Section 9.3 page 355 to help you.



5. In the Math Links 8 text, work through Example 2 on Chapter 9 Section 9.3 page 355. Now complete # 7, 8, 9, 10, 12, 17, 18 , 20 on pages 357- 359.

REVIEW AND CHALLENGE



1. In the Math Links 8 text, complete Chapter 9 Review pages 360-361 #1, 2, 5, 6, 7, 8, 9, 10, 12, 13, 14, 15.