

THE EVALUATION IN BRIEF

Here is a composite page from *Connected Mathematics*. It is one of more than a hundred pages that a team of analysts typically examines in order to rate a material.

Analysts begin with a clear understanding of the benchmark:

Symbolic equations can be used to summarize how the quantity of something changes over time or in response to other changes.
(Chapter 11C, grades 6-8, benchmark 4, p.274)

They follow a uniform procedure to complete their analysis.

4.1

Heading Home

At a Glance

Grouping:
small groups

Launch

- Introduce the use of rules written in both words and symbols to show the relationship between two variables.
- Discuss the relationship between rate, time, and distance.

Explore

- As groups of two or three work, suggest that students having difficulty using fractions draw pictures to help make sense of the problem.

Summarize

- Encourage groups to explain their answers and why they are reasonable.
- Have students compare their rules written in words with the ones written in symbols.
- Emphasize that while the letters used as variables are arbitrary, they must be defined for the equation to make sense.

A shorter way to write variables with single letters for the circumference C and n for the number of revolutions is $C = \pi \times d$.

You can shorten these rules even more. In algebra, when a number is multiplied by a variable, the multiplication sign is often omitted. So, you could write the above rules as:

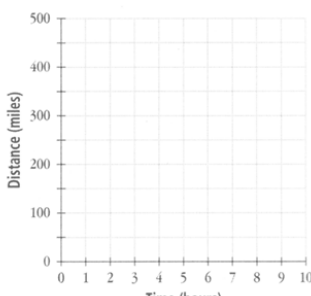
When you see a rule like $I = 350n$ mean...

4.1 Heading Home

When the Ocean Breeze Bikes packed their bikes and gear in the back of their van and traveled by interstate highway, and averaged a steady 55 miles per hour for the 310-mile trip home.

You have seen that making a table and a graph can help you understand how the time and the distance traveled are related.

Time (hours)	Distance (miles)
0	
1	
2	
3	
4	
5	
6	
7	
8	



Problem 4.1

A. Copy and complete the table and graph on the previous page to show the relationship between distance and time if the students traveled at a rate of 55 miles per hour.

B. Use your table and graph to estimate the total distance traveled after 1.2 hours, 2.4 hours, and 5.1 hours.

Step 1.
The analysts examine each textbook activity—a lesson or part of a lesson—that matches the content of the benchmark.

Step 2.
Analysts determine the extent to which an activity addresses the benchmark concept or skill.

Step 3.

Analysts decide which of the 24 instructional criteria apply to the activities they have identified throughout the textbook, for example:

Category V.1. Encouraging Students to Explain Their Reasoning. Does the material routinely include suggestions for having each student express, clarify, justify, and represent his/her ideas and how to get feedback from peers and the teacher?

...and then determine whether the activity meets the indicators for each criterion.

Please say if indicators are met (1) or not met (0) then assign a score for Criterion V.1. Encouraging Students to Explain Their Reasoning. Does the material routinely include suggestions for having each student express, clarify, justify, and represent his/her ideas and how to get feedback from peers and the teacher?

Indicator 1	1
Indicator 2	1
Indicator 3	1
Indicator 4	1
Please give this criterion one of the following ratings: 3 = High 2 = Medium 1 = Low 0 = None	3

Indicators of meeting Criterion V.1:

1. The material encourages students to express their ideas about the benchmark.
2. The material encourages students not only to express but also to clarify, justify, interpret, or represent benchmark ideas.
3. The material provides (or includes suggestions to help the teacher to provide) explicit feedback to students about their ideas.
4. The material includes suggestions to the students or teacher on how to use student responses to diagnose errors or difficulties, address errors or difficulties, or further develop students' ideas about the benchmark.

Scoring scheme for this sighting:

- High: The material meets all 4 indicators.
 Medium: The material meets indicator 1, along with 2 of the other 3 indicators.
 Low: The material meets at least 1 of the indicators.
 None: The material does not meet any of the indicators.

Step 4.

Based on the indicators met, analysts rate the activity on a scale of 0 to 3 for each criterion.

Once all sightings have been scored, a composite report is assembled.