MathLinks

8-7
TEACHER PACKET

MATHLINKS GRADE 8
TEACHER PACKET 7
EXPLORING FUNCTIONS

Table of Contents

ANNOTATIONS in this teacher packet provide additional program information for prospective users. Please go to http://mathandteaching.org/register/ and register to view all content components.

There are 16 student packets in the Grade 8 Program. This excerpt from the Teacher Guide accompanies Student Packet 7. For easy reference, the color of the cover of student packet will match the teacher packet.

GENERAL INFORMATION

PACING PLAN SUGGESTIONS

TRADITIONAL MATH SCHEDULE				
Days-Modified	Days-Basic	Days-Enriched	Lesson	Review/Practice
2	2	2	[7.1] Pages 0, 1-6	Pages 18-20
2	2	2	[7.2] Pages 0, 7-12	Pages 21-22
2	2	2	[7.3] Pages 0, 13-17	Pages 23-24
3	3	4	Catch up, Tasks, Assessment	

BLOCK SCHEDULE				
Days-Modified	Days-Basic	Days-Enriched	Lesson	Review/Practice
1	1	1	[7.1] Pages 0, 1-6	Pages 18-20
1	1	1	[7.2] Pages 0, 7-12	Pages 21-22
1	1	1	[7.3] Pages 0, 13-17	Pages 23-24
2	2	2	Catch up, Tasks, Assessment	

- Although they are listed at the end of the tables, use catch up days when needed.
- Tasks may be assigned at any time after students have completed the prerequisite content work.
- Multiple assessment measures are encouraged, including (but not limited to) quizzes, tasks, assessment challenges, strategically selected student pages, skill builders, selected response page, knowledge check, etc.
- Consider requiring a math journal, to be collected and chec
  end of selected class periods. Journals and exits slips may
  concepts, or anything else the instructor may want to asse
- As part of a modified program, consider omitting the follow
  Student Packet 7: pages 18 – 25 (select problems).

Every student packet includes three concept lessons and a review section. Packets generally take 1-3 weeks.

COMMON CORE STATE STANDARDS – MATHEMATICS

STANDARDS FOR MATHEMATICAL CONTENT	
6.RP.A*	**Understand ratio concepts and use ratio reasoning to solve problems.[1]**
6.RP.3a*	Make tables of equivalent ratios relating quantities with whole-number measurements, find missing values in the tables, and plot the pairs of values on the coordinate plane. Use tables to compare ratios.
7.RP.A*	**Analyze proportional relationships and use them to solve real-world and mathematical problems.[1]**
7.RP.2b*	Identify the constant of proportionality (unit rate) in tables, graphs, equations, diagrams, and verbal descriptions of proportional relationships.
7.RP.2c*	Represent proportional relationships by equations. *For example, if total cost t is proportional to the number n of items purchased at a constant price p, the relationship between the total cost and the number of items can be expressed as t = pn*.
7.RP.2d*	Explain what a point *(x, y)* on the graph of a proportional relationship means in terms of the situation, with special attention to the points (0, 0) and (1, *r)* where *r* is the unit rate.
8.EE.B	**Understand the connections between proportional relationships, lines, and linear equations.[1]**
8.EE.5	Graph proportional relationships, interpreting the unit rate as the slope of the graph. Compare two different proportional relationships represented in different ways. *For example, compare a distance-time graph to a distance-time equation to determine which of two moving objects has greater speed.*
8.F.A	**Define, evaluate, and compare functions.[1]**
8.F.1	Understand that a function is a rule that assigns to each input exactly one output. The graph of a function is the set of ordered pairs consisting of an input and the corresponding output.
8.F.2	Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions). *For example, given a linear function represented by a table of values and a linear function represented by an algebraic expression, determine which function has the greater rate of change.*
8.F.3	Interpret the equation $y = mx + b$ as defining a linear function, whose graph is a straight line; give examples of functions that are not linear. *For example, the function $A = s^2$ giving the area of a square as a function of its side length is not linear because its graph contains the points (1,1), (2,4) and (3,9), which are not on a straight line.*
8.F.B	**Use functions to model relationships between quantities.[1]**
8.F.4	Construct a function to model a linear relationship between two quantities. Determine the rate of change and initial value of the function from a description of a relationship or from two (*x*, *y*) values, including reading these from a table or from a graph. Interpret the rate of change and initial value of a linear function in terms of the situation it models, and in terms of its graph or a table of values.
8.F.5	Describe qualitatively the functional relationship between two quantities by analyzing a graph (e.g., where the function is increasing or decreasing, linear or nonlinear). Sketch a graph that exhibits the qualitative features of a function that has been described verbally.

*Review of content essential for success in 8th grade.
[1] A major cluster for the grade level.

STANDARDS FOR MATHEMATICAL PRACTICE	
MP2	Reason abstractly and quantitatively.
MP3	Construct viable arguments and critique the reasoning of others.
MP4	Model with mathematics.
MP6	Attend to Precision
MP7	Look for and make use of structure

PACKET PLANNING INFORMATION

Assessments, Reproducibles, and Tasks*

Quiz 7A, 7B
Proficiency Challenge 7
Test Part 7

Task, Page 7: Functional Relationships? [7.1]
Task, Page 8: Describing and Drawing Graphs [7.2]

*Located in the back of the Teacher Guide.

Materials

- [7.2] Millimeter ruler
- [7.2] Clear container with straight sides
- [7.2] Small measuring cups
- [7.2] Water in containers
- [7.2] Paper towels

***MathLinks:* Grade 8 Resource Guide (Part 1)**

Key vocabulary in the Word Bank:

- direct proportion
- function
- graph of a function
- input-output rule
- linear function
- rate
- unit rate
- variable

Explanations and examples:

Functions
Linear Functions

Prepare Ahead

- [7.2] Collect various clear containers with straight sides (such as a prescription medicine container).
- [7.2] Collect small measuring cups (such as a soft drink bottle cap or flower vases).
- [7.2] Collect containers to hold larger amounts of water.
- [7.2] Collect paper towels for cleaning up.

Technology Resources

Watch the video Digit in Pursuit (4 min 52 sec) at http://www.teachersdomain.org/resource/vtl07.math.data.rep.digitpurs/. It may require pausing or multiple views. Discuss and/or have students write about these graphs to explain what they are representing. Challenge students to critique the labeling of the vertical axes in both graphs, and offer an alternative, more accurate label. Browse this site for more appropriate videos to use in the classroom. It's free, but may require registering.

Options for a Substitute

Any time: Pages 18-20
After 7.1: Page 21
After 7.2: Pages 22-23
After 7.3: Pages 24-29

This page summarizes planning information to get you started.

TEACHER CONTENT INFORMATION

MATH NOTES

MN1: Different Definitions of Funtion [7.1]

There is another (different) definition of function that has appeared in some math textbooks. It is based on the notion of a relation, which is defined to be a set of ordered pairs. A function is then defined to be a relation in which each x-value appearing in a pair (x,y) corresponds to exactly one y-value. If we denote this y-value by $y = f(x)$, the function is then the set of all pairs $(x, f(x))$, for all possible values of x. This is none other than the definition we have given for the graph of the function defined by the rule $x \rightarrow f(x)$. Thus, there is a simple correspondence between the two different definitions, in which a "function" according to one definition corresponds to the "graph of a function" according to the other (our) definition. For mathematical purposes, the definitions are equivalent. We have chosen the input-output definition because it is conceptually easier for students and it avoids the extra baggage of relations (which are not mentioned in the Common Core State Standards for Mathematics).

Most Math Notes were written by our mathematicians. They provide additional content information for teachers, often beyond what students will learn.

TEACHING NOTES

TN1: Select Standards for Mathematical Practice Examples [7.1, 7.2, 7.3]

Here are a few examples of how the Standards for Mathematical Practice are applied in these lessons.

MP2 Reason abstractly and quantitatively. [7.2] Althou
that axes be scaled and labeled, graphs without s
students analyze rate graphs that show the relatio
must predict the shape of the container and explai

MP3 Construct viable arguments and critique the reaso
require students to make arguments and justify th
discussion, especially with problems for which not

Teaching Notes were written by math educators. TN1 links packet contents to Standards for Mathematical Practice. TNs 2-4 focus on strategies for special populations. Other teaching information begins in TN5.

MP4 Model with mathematics. [7.2] Students identify important quantities in a practical situation (Pouring Water activities) and describe the relationships using graphs and words. They analyze relationships and interpret results. [7.3] Students model everyday situations to solve problems using proportional reasoning and communicate solutions using multiple representations (Tables, Graphs, and Equations).

MP6 Attend to Precision [7.1] The function definition and corresponding examples can be tricky and difficult to grasp at first. Require that students pay particularly close attention to the language that they use as they describe whether a representation (graph, table, mapping diagram, etc.) could represent a function.

MP7 Look for and make use of structure.[7.3] Properties of a direct proportion become the focus of each "Best Buy" problem. They use the equation $y = mx$ and observe its similarity to the linear function introduced in a previous lesson. For each problem, they look for meaning of points on the graph such as (0, 0) and (1, m).

TN2: Strategies for English Learners [7.1, 7.2, 7.3]

Building Background

(Emphasize key vocabulary.) [7.2] Make sure English Learners have a clear understanding of common words like "increasing," "decreasing," "linear," and "non-linear." Have students draw visual examples of each term so they can more accurately describe and create graphs.

Instructional Strategies

(Make concepts clear with visuals.) [7.1] Have students focus on visual representations to see if a relationship is a function. Specifically, mapping diagrams can be helpful because arrows help students more easily see if a domain value "goes to" more than one range value. Mapping diagrams can be created for most examples in this lesson to aid student understanding.

Student Interaction

(Encourage student/student interactions.) [7.3] Have students share their reasoning and critique each other. Provide ample opportunity to let students practice making accurate statements about graphs and turning statements into accurate graphs.

TEACHING NOTES (Continued)

TN3: Strategies for Special Learners [7.1, 7.2, 7.3]

Create a positive classroom culture

(Make learning meaningful.) [7.3] Encourage students to extend the best buy problem to real-world examples. Comparing the cost of different size beverages on restaurant menus might be a good activity to help students understand and apply meaning to their learning.

Increase communication and participation

(Allow alternative methods to express mathematical ideas.) [7.2, 7.3] There are a variety of ways to use math to describe relationships and solve problems. Encourage students to share and elaborate the process they used to make conclusions about rate graphs and solve best-buy problems.

Make connections

(Use multiple representations (pictures, numbers, symbols, or words) of math ideas.) [7.1, 7.2, 7.3] Encourage students to use their learning strengths to maximize their versatility as skillful math students. Students should be able to interpret and present information in all formats, but focusing on areas of strengths can help boost confidence necessary to improve areas of weakness.

TN4: Strategies for Enrichment [7.1, 7.2, 7.3]

Have students make a poster that helps other students develop strategies to evaluate if a relationship is a function. For example, students can use examples of mapping diagrams that are and are not functions and help students see that an input value cannot have two arrows, but an output can. Or students can make visual representations that demonstrate not only their own understanding of the vertical line test but also help struggling students see more examples.

Have students create more challenging “containers” for the pouring water activity. Students can exchange drawings of containers and draw and compare graphs with each other. Students can also create a rate graph and then create a suitable container based on the graphical information and then compare answers.

Have students conduct real-world investigations about best-buy problems. They can summarize their findings and give brief presentations to the class.

TEACHING NOTES (Continued)

TN5: Student Misconceptions in Graphing Water Levels [7.2]

In graphing the water level when water is poured into a container at a constant rate, many students have the misconception that the graph will be a vertical or a horizontal line, rather than a diagonal line or a curve.

If time permits, allow students to experiment pouring water into containers of various shapes and graphing their results.

One method that nicely replicates the process of pouring water into a container is to shade the inside of the container with light, quick horizontal back-and-forth pencil strokes. Start at the bottom and move upwards to the top of the container to give student a feel for how long it might take for water to fill any particular part of a container.

TN6: Best Buy Reasoning [7.3]

Give students ample opportunities to talk and/or write through the thinking about what it means for one item to be a better buy than another. An item is a better buy if (1) you can buy more of it for the same price, or (2) you can buy the same amount of it for less money.

While Math Notes and Teaching Notes were written to support instruction, we strongly recommend professional development to help teachers learn content and strategies for effective implementation of a Common Core program using MathLinks resources.

INTRODUCTION TO FUNCTIONS

Summary	Goals
Students explore the concept of a function. Students define the terms function and graph of a function. Students describe examples of functions and examples of non-functions. *8.F.A*	• Define function and graph of a function. • Interpret different representations of functions. • Determine when a set of ordered pairs is the graph of a function.

PREVIEW / WARMUP

Whole Class

Page 0
Word Bank

Page 1
Introduction to Functions

- Introduce the goals and standards for the lesson. Discuss important vocabulary as relevant. Students complete the warmup activity.

  How are these two graphs related? They have the same "U" shape, and are called parabolas. One is a rotation of the other. That is, it is "turned on its side."

INTRODUCE 1 / PRACTICE 1

Whole Class

Pages 2-3
What is a F

Page 4
Practice wi
Functions

- Discuss the definition of function. Then guide students through the three examples and
  ns.

  lete problems where they identify functions that are described using
  s. This is appropriate for class work or homework.

Every lesson begins with a black bar title, summary and goals, which are also listed in the student packet.

INTRODUCE 2 / PRACTICE 2

Whole Class

Page 5
The Graph of a Function

- Discuss the meaning of a graph of a function and how to apply the vertical line test to determine if a graph represents a function. Students explain their reasoning as they determine which graphs could represent functions.

SUMMARIZE

Whole Class

Pages 2-3
What is a Function

Page 4
Practice with Functions

Page 5
The Graph of a Function

- Discuss problems as needed. Be sure students understand that for a function, each input must have a unique output; however several inputs can have the same output.

  [Page 5, problem 3] Does this graph appear to be linear? It is not a straight line that students may be used to. We refer to it as being "piecewise linear."

  [Page 5, problem 7] Do the tables and graphs from the warmup represent functions? The first problem does represent a function, the second does not. Ask students to explain using the definition of function and the vertical line test. Discuss as needed.

EXTEND	
Whole Class Page 6 Drawing Graphs Task, Page 7 Functional Relationships?	• Students create graphs that fit the descriptions and then share.

CLOSURE	
Whole Class Page 0 Word Bank Page 1 Introduction to Functions	• Review the goals, standards, and vocabulary for the lesson.

Every lesson follows a general pattern (warmup, introduce, explore, summarize, practice, extend, closure). Grouping strategies, student packet page(s), and materials needed for each phase of the lesson are in the left column.

RATE GRAPHS

Summary	Goals
Students use words, pictures, tables of numbers, and graphs to represent rates. Students compare representations of functions. *8.F.A, 8.F.B*	• Solve problems involving rates, average speed, distance, and time. • Represent situations graphically and interpret the meaning of specific parts of a graph.

PREVIEW / WARMUP

Whole Class

Page 0
Word Bank

Page 7
Rate Graphs

- Introduce the goals and standards for the lesson. Discuss important vocabulary as relevant. Students complete the warmup activity. Students use the graph to answer questions about Chris' jog at the park.

  Note that average rate of speed = $\frac{\text{total distance in yards}}{\text{total time in minutes}}$.

  How do you know Chris was running faster in the last two minutes?

  $\frac{400 \text{ yards}}{2 \text{ minutes}} = 200\frac{\text{yards}}{\text{min}}$, which is faster than $\frac{200 \text{ yards}}{2 \text{ minutes}} = 100\frac{\text{yards}}{\text{min}}$. Note that the graph is steeper in the last two minutes as well.

  Why does it seem that Chris' graph could represent a function? For any given input (time) there is exactly one output (distance). The graph passes the vertical line test. ***Is it a linear function?*** No, the graph is not a line.

INTRODUCE

Whole Class

Page 8
Pouring Water 1

Materials
- Small measuring cups
- Clear container with straight sides
- Millimeter ruler
- Water
- Paper towels

Pages 9-10
Pouring Water 2

- Discuss the meaning of pouring water into a container at a constant rate, that is, that the volume of water flowing in per unit of time is constant. Discuss the meaning of how fast a container fills up, which is how fast the water level rises

> Fill up a small measuring cup (such as a bottle cap) with water and pour it into a clear container with straight sides (such as a prescription medicine container). Measure the height of the water in millimeters and record this measurement in a table. Repeat this process a few times and make a graph of the data. Since the container has straight sides, it will fill at a constant rate and the graph of the data will be a line. The slope of the line is the height increase per pour. That is:
>
> $$\text{slope} = \frac{\text{height increase}}{\text{number of pours}}$$

- [Problems 1-4] Students predict how each container will "fill up," that is, how fast the water level with rise. They match the containers to the appropriate graph.

  Which container will fill up at a constant rate? Container 1.

  Which container will fill up quickly at first and then more slowly as time passes? Container 3.

  Which container will fill up slowly at first and then more quickly as time passes? Container 2.

  Explain how container 4 will fill up. First quickly, then it will slow down until it gets to the middle portion, and then it will start to fill more quickly again.

  Now match the containers to the graphs. Based upon the above descriptions: 1A; 2D; 3C; 4B.

EXPLORE

Partners/Individuals

Pages 9-10
Pouring Water 2

- [Problems 6-7] Students sketch an appropriate graph for each container and explain their reasoning. During sharing, be sure that students understand that their graphs can look slightly different from one another as long as their reasoning backs up their thinking.

The Student Packet IS NOT intended to be a stand-alone workbook! It is structured workspace to support all learners. Lesson plans in the teacher guide provide guidance for classroom activities, interactions, and questioning.

SUMMARIZE 1

Whole Class

Pages 9-10
Pouring Water 2

- Compare container 5 to containers 1-4.

Which container is similar to container 5? Container 1. ***Why?*** It is the same container, with base and height reversed. Both will require the same number of pours to fill each of them. Each pour will fill the same percentage of the container. They both fill at a constant rate, and their graphs are both linear.

What is different about them? One pour in container 1 results in more height than one pour into container 5. Therefore, if graphed on the same axes, the line representing the height vs. pours for container 1 will be "steeper" than the height vs. pours for container 5.

How might you compare the other containers to container 6? Explain. Answers may vary. Some students may consider container 6 to be some kind of combination of containers 2 and 3. Others may see it to be much like container 4, though opposite in how the water fills it. Rather than a "quick-slow-quick" fill ("steep-flat-steep" graph), it is the opposite.

PRACTICE

Whole Class, then Partners

Page 11
Match the Table to the Graph

Page 12
Make the Numbers Fit

Task, Page 8
Describing and Drawing Graphs

- Students match the tables to the graphs. Exact values on the graphs are unnecessary. Recommend that students write the change for each *y*-value in the table as the corresponding *x*-values increase by one. Also recommend that they look for constant increasing or decreasing rates of change.
- Students estimate reasonable coordinates on the graphs and fill in the tables accordingly. This is appropriate for class work or homework.

SUMMARIZE 2 (Continued)

Whole Class

Page 11
Match the Table to the Graph

- Discuss the tables and graphs.

Which graphs illustrate increases at a constant rate? Graphs A and C because they are straight lines.

Which one of those is increasing at a faster rate? Graph C, because it is steeper.

Which tables illustrate increases at a constant rate? Table 1 (which increases 2 *y*-units for each *x*-unit) and Table 2 (which increases 3 *y*-units for each *x* unit).

Which of these tables illustrates the faster rate of increase? Table 2, because an increase of 3 per unit is more than an increase of 2 per unit.

Which table matches graph B? Table 3. The *y*-values increase by 1, then 2, then 3, and so on. Therefore it increases at an increasing rate of speed. In other words, the numbers increase slowly at first and then more quickly.

Which table matches graph D? Table 4. The *y*-values increase by 6, then 5, then 4, and so on. Therefore it increases at a decreasing rate of speed. In other words, the numbers increase quickly at first and then more slowly.

Page 12
Make the Numbers Fit

- Share many student samples, as there may be a variety of correct answers. This requires students to use precise language, to construct viable arguments, defend them, and critique the reasoning of others.

CLOSURE

Whole Class

Page 0
Word Bank

Page 7
Rate Graphs

- Review the goals, standards, and vocabulary for the lesson.

BEST BUY PROBLEMS

Summary	Goals
Students use numbers and graphs to help determine which choices are better buys, based on price. Students learn about a special linear function called a direct proportion. *6.RP.A, 7.RP.A, 8.EE.B, 8.F.A, 8.F.B*	• Use tables, graphs, rules, and verbal descriptions to determine the best buy, based on price. • Write equations that represent relationships between cost and quantity. • Define and identify functions modeling proportional relationships. • Identify unit rates from equations and graphs.

PREVIEW / WARMUP

Whole Class

Page 0
Word Bank

Page 13
Best Buy Problems

- Introduce the goals and standards for the lesson. Discuss important vocabulary as relevant. Students complete the warmup activity. Some helpful reasoning:

  At which store are pens cheaper? Value-Mart. ***Why?*** You can get the same number of pens for less money. ***At which store are pencils cheaper?*** Savings Hut. ***Why?*** You can more pencils for the same price.

- At the conclusion of the warmup exercise, make it explicit to students that the prior knowledge they used will be extended to new knowledge in this packet.

INTRODUCE

Whole Class

Page 14
Bagels

- Read and work through the problem as needed.

  At Shmear 'N Things, 4 bagels cost $3. How much will 8 bagels cost? $6. ***At Hole-y Bread, 5 bagels cost $4. How much will 10 bagels cost?*** $8.

  From the numbers in the tables, how do you know which store has the better buy? Answers may vary. One way to tell is that at Shmear 'N Things you can buy more bagels for the same price (16 for $12 vs. 15 for $12). Another way to tell is that at Shmear 'N Things you can buy the same number of bagels for less money (20 for $15 vs. 20 for $16).

  What is a unit price? A price for one unit of measure, or specifically in this case the price for one bagel.

Step by step suggestions for delivery of a lesson, along with questions to stimulate discussion are included in lesson plans. Online professional development support for many lessons is available at www.mathandteaching.org through a secure teacher login.

. The unit prices are $0.75 per bagel

-y Bread.

ding which is the better buy? Yes.

aper than at Hole-y Bread.

INTRODUCE (Continued)

Whole Class

Page 14
Bagels

- As students try to find equations to relate the number of bagels to cost at each shop, note that, even though the output values are multiples of 3, the equation $y = 3x$ does not work, because the input values are not {1, 2, 3,…}.

In the table for Shmear 'N Things, the output column shows a repeated increase of 3. Does the rule y = 3x work as an input-output equation? No. $4 \cdot 3 \neq 3$, $8 \cdot 3 \neq 6$, etc.

How do we know the increase per <u>one</u> bagel? When we found the unit price, we saw that each bagel cost \$0.75. This may be enough of a hint for some students to recognize that the correct explicit rule for Shmear 'N Things is $y = 0.75x$. Repeat the process for Hole-y Bread to determine the explicit rule $y = 0.8x$.

How is the structure of these equations different from other linear functions we have studied? These functions are of the form $y = mx$. Others have been of the form $y = mx + b$. The constant b represents the *y*-intercept. For the function $y = mx$, the graph goes through the origin (0, 0).

What does m represent in this problem? If students calculated the unit price, they may observe that *m* represents the unit price. This is because $\frac{y}{x} = \frac{\text{cost}}{\text{\# of bagels}}$ represents the unit price.

As we begin to graph, how should we label the axes? Since "# of bagels" is the input (independent variable) it should be graphed on the *x*-axis; price is the output (dependent variable) and should be graphed on the *y*-axis.

How should we scale the axes? Answers may vary. Scaling by ones is fine, but not all data points can be graphed. Scaling by twos allows for all data points to be graphed, but odd numbers are harder to work with in this case.

Which graph illustrates a slower rise in price? Shmear 'N Things. ***How do you know?*** It is flatter. ***Why does this indicate a better buy?*** At any given number of bagels, it indicates a lower price.

What does the coordinate (1, 0.8) represent on the Holey-Bread graph? The unit price. The value 0.8 also represents *m*, which students may identify as the slope. Deeper understanding of slope will develop in future lessons.

EXPLORE

Partners/Individuals

Page 15
Tortillas

- Students complete a similar problem. Find several students to explain different parts or to explain parts in different ways.

For students who need additional help finding the correct equations to describe input-output relationships, consider having them rewrite the table with input values {1, 2, 3, 4, 5, 6….} and the corresponding output values. In this table, the unit rate will be clear, and students will be able to connect the unit rate to the role of the coefficient of x in the equation.

SUMMARIZE

Whole Class

Page 15
Tortillas

- Ask questions similar to the ones in the Introduce section.

What is the easiest way to find the best buy? Quickest? Longest? Answers may vary, though students comfortable with numbers may prefer using the table and/or finding unit price (which is probably the quickest method). Students who prefer visuals may like the graph (which is probably the longest).

How does the unit rate relate to the equation for each of the tortilla brands? The unit rate is the multiplier of x in the equation.

PRACTICE

Individuals

Page 16
Pita Bread

Page 17
Croissants

- These are appropriate for class work or homework

CLOSURE

Whole Class

Page 0
Word Bank

Page 13
Best Buy Problems

- Review the goals, standards, and vocabulary for the lesson.