# Teaching **Peanuts! Popcorn!**

Students work with a baseball stadium menu to solve assorted problems.

| Tasks | ◆ Tier 1 Below Level | ● Tier 2 On Level | ⬠ Tier 3 Above Level |
|---|---|---|---|
| Compare, compute, and estimate with money amounts. | X | X | X |
| Choose the operation. | X | | |
| Solve multi-step problems. | X | X | X |
| Formulate problems based on menu data. | | X | X |
| Use situational problem solving | | X | X |
| Compute with percentages. | | X | X |
| Solve problems involving outcomes and probability. | | | X |

## Getting Started

See the tips below for introducing the lesson. Make copies of the student data sheet (page 24) and the appropriate leveled activity sheet for each group of learners (pages 25–27).

Access prior knowledge by having students practice ordering from a menu and computing a reasonable tip. Also discuss baseball talk such as *homer, whiff, bean ball, balk,* and *dugout.*

### ◆ Tier 1

- **Use the Data:** Talk about what the menu shows and doesn't show. Acknowledge that the prices are high. Work through items 1 and 2 together. Review rounding money amounts to the nearest $10 by focusing on the digit in dollars place. Review how to compare values of money.

- **Find the Price:** Remind students to align decimal points to add or subtract money amounts.

- **Choose the Operation:** Have students look for clues in the questions, such as "change" and "equally" in order to determine the operation. Emphasize the value of estimating total costs before making a purchase.

### ● Tier 2

- **Use the Data:** Discuss the features of the menu, item names, and prices. Talk about ways to solve items 1–3. Model estimation strategies students can use. Invite volunteers to explain their strategies for solving items 5 and 6.

- **Juice Up the Menu:** Prepare an interactive bulletin board on which students can post their menu revisions and the problems they created. Invite classmates to solve them.

- **Order for a Group:** Guide students to tip on the total price *before* the tax is added. Consider having students work in pairs. Have students share their orders and bills.

### ⬠ Tier 3

- **Use the Data:** Review finding percentages and calculating the total cost of an item including tax. Provide examples, as needed. Have volunteers explain their solutions to items 3–4.

- **Make Your Choices:** Review finding possible outcomes and calculating probabilities. Point out that there are eight choices for main dishes, counting add-ons, and seven for sides and desserts.

- **Create a Menu:** Consider having students work in pairs to create their menus and problems. Then have pairs exchange menus and solve each other's problems. Point out that tips in restaurants usually range from 10% to 20% and are based on the price of the food without tax added.

# Peanuts! Popcorn!
## Data Sheet

At the new ballpark, you can place your order before you sit. So head for the restaurant before you root, root, root for your team!

Check out the many tasty delights that await you. Bring your appetite and plenty of cash—these prices are out of the ballpark!

Here's the amazing menu. *

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### FIELDER'S CHOICE FAMILY FOODS
*The food is beyond compare. And the prices are beyond belief!*

**Get Your Main Course!**

Homer Hot Dog . . . . . . . . . . . . . . . . . $9.50
Ball Four Burrito . . . . . . . . . . . . . . . $10.95
Balk Burger . . . . . . . . . . . . . . . . . . . $12.50
　　with Change-Up Cheese add $2.00
Triple-Decker Sandwich . . . . . . . . . . $16.95
Plate Tacos (beef or beans) . . . . . . . $14.49
Champ's Chicken Wings (5) . . . . . . . . $3.95
　　with Slider Sauce add $2.00

**Get Your Drinks!**

Scorecard Soda . . . . . . . . . . . . . . . . . $6.50
Cy Young Cider . . . . . . . . . . . . . . . . . $9.25
Lazy Fly Lemonade . . . . . . . . . . . . . . . $7.79
Winner Water . . . . . . . . . . . . . . . . . . . $5.00
Mound Milk . . . . . . . . . . . . . . . . . . . . $6.50
Shake-off-the-Sign Shake . . . . . . . . . . $8.95
Infield Iced Tea . . . . . . . . . . . . . . . . . $4.79

**Get Your Sides!**

Corn on the Cobb . . . . . . . . . . . . . . . $4.99
Babe Ruth Biscuits (3) . . . . . . . . . . . . $9.00
Change-Up Cheese Dip . . . . . . . . . . . $7.50
Bean-Ball Baked Beans . . . . . . . . . . . $8.25
Pop Fly Popcorn . . . . . . . . . . . . . . . . $5.75
Smashed Potatoes . . . . . . . . . . . . . . . $6.00
　　with Grounder Gravy . . . . . . . . . . $8.50

**Get Your Desserts!**

Single-Scoop Sundae . . . . . . . . . . . . . $6.95
Double-Scoop Sundae . . . . . . . . . . . $12.95
Triple-Scoop Sundae . . . . . . . . . . . . $16.95
Pitcher's Pie . . . . . . . . . . . . . . . . . . . $8.95
　　with Whiffed Cream add $4.95
Major League Cookie . . . . . . . . . . . . . $4.44
Dugout Donut . . . . . . . . . . . . . . . . . . $5.00

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*\* Sorry, all out of peanuts today!*

# ◆ **Peanuts! Popcorn!** Activity Sheet

**Use the Data** ) Solve each problem.

**1.** Which main courses cost more than $14? _____

_____

**2.** Which main courses cost less than a Double-Scoop Sundae? _____

_____

**3.** Which main courses cost between $10 and $15? _____

_____

**4.** Which main course rounds to $20 when rounded to the nearest $10? _____

**5.** Which costs more: a Homer Hot Dog and a Shake or a Balk Burger and a
Scorecard Soda? _____

How much more? _____

**6.** Which costs more: a) Plate Tacos, Corn on the Cobb, and Infield Iced Tea or
b) a Triple-Decker Sandwich, Bean Ball Baked-Beans, and a Lazy Fly Lemonade?

_____ How much more? _____

**Find the Price** ) Solve each problem.

**7.** Ollie orders two Ball Four Burritos and three Shake-off-the-Sign Shakes.
How much does his meal cost? _____

**8.** Wanda wants Champ's Chicken Wings with Slider Sauce, Smashed Potatoes with Grounder
Gravy, and Winner Water. How much will her meal cost? _____

**Choose the Operation** ) Solve each problem.

**9.** You order three items. You want to know how much change you will get from a $50 bill.
What operations do you use? _____

**10.** Four pals equally share the cost of Plate Tacos, Pop Fly Popcorn, two Shake-off-
the-Sign Shakes, and a Pitcher's Pie. Explain how to figure what each pal pays.

_____

Name _____     Date _____

# ● Peanuts! Popcorn! Activity Sheet

**Use the Data** ) Solve each problem.

**1.** Miguel has $30 to spend. Can he afford Plate Tacos, Corn on the Cobb, and Cy Young Cider? Why or why not? _____

**2.** Homer has $25 to spend. Is that enough to buy a Ball Four Burrito and a Triple-Scoop Sundae? Why or why not? _____

**3.** Ana has $25. She orders 10 Chicken Wings, an order of Slider Sauce, and Lazy Fly Lemonade. Does she have enough cash left for a dessert? If so, which could she get?

_____

**4.** Talia spends $26.73. She orders a Triple-Decker Sandwich, Corn on the Cobb, and a beverage. Which beverage does she order? _____

**5.** Jen orders the most expensive item from each category. Kai orders the least expensive one. Neither orders any sauce, cheese, or gravy. How much less than Jen's order is Kai's order?

_____

**6.** Max spends $21.45 on a main and a dessert. He doesn't like ice cream. Which main course and dessert does he order? _____

**Juice Up the Menu**

Expand the ballpark menu. On the Data Page, add one new item and its price to each section. Be clever and think like a chef! Write two problems based on the new data.

**Order for a Group**

Imagine that your team goes to Fielder's Choice restaurant. There are 10 of you in all. Each person orders one item from each section of the menu. Coach Ryan asks you to figure out the total cost of the meal. On a separate paper, create a table like the one below to do the following:

🗘 Find the total cost of each person's meal.

🗘 Find the total pre-tax and pre-tip cost of all 12 meals.

🗘 Add on 5% of the total for sales tax. Plan for a 10% tip.

🗘 Find the final total.

|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|---|
| Main Course |  |  |  |  |  |  |  |  |  |  |
| Side |  |  |  |  |  |  |  |  |  |  |
| Drink |  |  |  |  |  |  |  |  |  |  |
| Dessert |  |  |  |  |  |  |  |  |  |  |
| Total per person |  |  |  |  |  |  |  |  |  |  |

Group total: _____

Name _____     Date _____

# ⬠ Peanuts! Popcorn! Activity Sheet

**Use the Data** ) Solve each problem.

**1.** Sales tax is 8%. How much tax would pay if you order a Homer Hot Dog, Smashed Potatoes, and Winner Water? _____

**2.** You order Plate Tacos, Change-Up Cheese, and Cy Young Cider. If sales tax is 6%, what is your total cost? _____

**3.** You order a Balk Burger, a Scorecard Soda, and a Dugout Donut. You pay a total of $26.40. How much is the tax? _____ What percent is the tax? _____

**4.** You pay a total of $13.17 for a side and a drink. Tax is 7.5%. What did you order? *Hint: Use number sense to remove some possibilities.* _____

**Make Your Choices**

**5.** How many different choices are there for main courses? _____

**6.** How many different choices are there for a beverage with a dessert? _____

**7.** If you don't like sundaes or shakes, how many choices do you have for a beverage with a dessert? _____

**8.** Inez orders a drink. What is the probability that she orders an Infield Iced Tea?
_____

**9.** Dan orders a main course and a side, but the restaurant has run out of Change-Up Cheese, Slider Sauce, Babe Ruth Biscuits, and Grounder Gravy. What is the probability that he orders a Balk Burger and Bean Ball-Baked Beans? _____

**Create a Menu**

On separate paper, make up a menu of foods you enjoy. List the foods in three categories: Starters, Main Dishes, and Desserts. Plan for 4–6 options per category. Include prices. Use a chart like this one. Next, make up 3 problems about your menu. Include:

🌀 1 problem that takes more than one operation to solve

🌀 1 problem that involves possible outcomes and probabilities

🌀 1 problem about taxes or tips

| Starters | | Main Dishes | | Desserts | |
|---|---|---|---|---|---|
| Item | Price | Item | Price | Item | Price |
| | | | | | |

# Answer Key

## Peanuts! Popcorn!

**Tier 1, page 25:** Use the Data: 1. Triple-Decker Sandwich, Plate Tacos, Balk Burger with cheese 2. Homer Hot Dog, Ball Four Burrito, Balk Burger (no cheese), Chicken Wings 3. Ball Four Burrito, Balk Burger, Plate Tacos, Balk Burger with cheese 4. Triple-Decker Sandwich 5. Balk Burger and Scoreboard Soda; $.55 6. b; $8.72; Find the Price: 7. $48.75 8. $19.45; Choose the Operation: 9. addition and subtraction 10. Add all the prices. Then divide the sum by 4.

**Tier 2, page 26:** Use the Data: 1. Yes. The total is $28.23 2. No. The total is $27.90 3. Yes. She could get either a Single-Scoop sundae, a Major League Cookie, or a Dugout Donut. 4. Infield Iced Tea 5. $52.15 - $18.17= $33.98 6. Balk Burger and Pitcher's Pie; Juice Up the Menu: *Answers will vary. Check student problems.* Order for a Group: *Answers will vary. Check student work.*

**Tier 3, page 27:** Use the Data: 1. $1.64 2. $33.11 3. $2.64; 10 4. Pop Fly Popcorn and Scoreboard Soda; Make Your Choices: 5. 8 6. 49 7. 24 8. 1/7 9. 1/36; Create a Menu: *Answers will vary.*