Adding and Subtracting Mentally

Extend Your Learning
Answers and Explanations

Use this menu to solve the problems on the following pages.

Mom's Home Cookin' Menu

Homemade Soups

Homemade Soup and ½ Sandwich	$7
Homemade Soup and Salad	$7
Salad and ½ Sandwich	$6
Bowl of Soup	$5
Chicken Noodle or Soup of the Day	

Appetizers

Nachos	$6
Buffalo Wings	$7
Onion Rings	$5
Fried Cheese Curds	$5

Sandwiches

Open-Faced Turkey Sandwich	$9
Open-Faced Roast Beef Sandwich	$9
Rueben Sandwich	$9
Garden Vegetable Sandwich	$8
Double-Decker Hamburger	$8

Salads

Chinese Chicken Salad	$9
Southwest Chicken Salad	$9
Mom's Chef's Salad	$7

Entrées

Chicken Fried Steak	$11
Chicken Pot Pie	$ 9
Pork Ribs	$12
Mom's Pot Roast	$10
Grilled Shrimp	$12

Desserts

Mom's Fruit Pies	$5
—apple, raspberry, cherry, or peach	
Mom's Cream Pies	$5
—chocolate, lemon, banana	
Hot Fudge Sundae	$4
Mom's Pudding	$2
—chocolate, vanilla, butterscotch	

Drinks (lemonade, iced tea, coffee, soft drinks) $2

Adding and Subtracting Mentally

Extend Your Learning
Answers and Explanations

Explain how to solve each problem using mental math.

1. Kristin and her family went out to eat at Mom's Home Cookin'. They started their meal with two orders of Nachos. Kristin's dad ordered a Double-Decker Hamburger and Lemon Pie. Kristin's mom ordered Chinese Chicken Salad. Kristin ordered a bowl of soup and a Hot Fudge Sundae. How much did this meal cost?

   Strategy 1: Add the cost of each item in the order listed. Two orders of Nachos ($6 + $6 = $12), add the hamburger ($12 + $8 = $20), add the lemon pie ($20 + $5 = $25), add the Chinese Chicken Salad ($25 + $9 = $34), add the soup ($34 + $5 = $39), and lastly add the sundae ($39 + $4 = $43). The meal costs $43.

   Strategy 2: First, add the cost of the Nachos and each person's order. Then mentally add these costs for the total.
   Two orders of Nachos ($6 + $6 = $12)
   Mom's order ($9)
   Dad's order ($8 + $5 = $13)
   Kristin's order ($5 + $4 = $9)

   Mom's and Kristin's orders: $9 + $9 = $18 (Possible thinking: addition double)
   Nachos and Dad's order: $12 + $13 = $25 (Possible thinking: 12 + 12 = 24. Since 13 is one more than 12, 12 + 13 = 25.)
   Total: $18 + $25 = $43 (Possible thinking: 20 + 25 = 45. Since 18 is two less than 20, 18 + 25 = 43.)

2. You are going to Mom's Home Cookin' and you are going to order one appetizer, one entrée, and one dessert. What is the least expensive meal you can buy? What is the most expensive meal you can buy? What is the difference in cost between the most expensive and least expensive meal?

   Least Expensive Meal:
   The least expensive meal will have the least expensive item in each category. One possible answer is Onion Rings, Chicken Pot Pie, and Mom's Pudding. This meal would cost $5 + $9 + $2, or $16. (Possible thinking: 5 + 9 = 14, 14 + 2 = 16)

   Most Expensive Meal: The most expensive meal will have the most expensive item in each category. One possible answer is Buffalo Wings, Grilled Shrimp, and Raspberry Pie. This meal would cost $7 + $12 + $5, or $24. (Possible thinking: 7 + 12 = 19. Now add 19 + 5. Since 20 + 5 = 25 and 19 is one less than 20, 19 + 5 = 24.)

   Difference: The difference in cost between the most expensive meal and the least expensive meal is $24 – $16, or $8. (Possible thinking: 24 – 10 = 14, 14 – 6 = 8)

3. Mom's Home Cookin' has a special each Monday. Anyone who orders a dessert with an entrée, gets a free drink. Conrad and his friends from work went out to eat on a Monday. This is what they ordered. How much was their bill?

Conrad	Cheese Curds, Chicken Pot Pie, apple pie, and iced tea
Deshawn	Buffalo Wings, Chicken Fried Steak, lemon pie, and lemonade
Gabe	Nachos, Mom's Pot Roast, pudding, and coffee
Liam	Soup of the Day, Onion Rings, and lemonade

Conrad: $5 + $9 + $5 = $19 (Possible thinking: $5 + $5 = $10, then $10 + $9 = $19. The iced tea is free.)
Deshawn: $7 + $11 + $5 = $23 (Possible thinking: $7 + $5 = $12, then $12 + $11 = $23. The lemonade is free.)
Gabe: $6 + $10 + $2 = $18 (Possible thinking: $6 + $10 = $16, then $16 + $2 = $18. The coffee is free.)
Liam: $5 + $5 + $2 = $12 (Possible thinking: $5 + $5 = $10, then $10 + $2 = $12)

Total: $19 + $23 + $18 + $12 = $72
Possible thinking: $19 + $23 = $42 ($20 + $23 = $43, $19 + $23 is one less or $42)
$18 + $12 = $30
$42 + $30 = $72

4. Melvina got a $20 gift certificate for Mom's Home Cookin'. She wants to spend as close to $20 as possible but does not want to spend more than $20. What can she buy?

Answers will vary, but here are four possibilities. The answers do not include tax or tip.

Bowl of soup ($5), Mom's Pot Roast ($10), and banana cream pie ($5)

Buffalo Wings ($7), a Reuben Sandwich ($9), and a Hot Fudge Sundae ($4)

Mom's Chef Salad ($7), Chicken Fried Steak ($11), and chocolate pudding ($2)

Soup and ½ Sandwich ($7), cherry pie ($5), Salad and ½ Sandwich ($6), and vanilla pudding ($2)