Name _____ Date _____

## Setting Goals

**1.** The second grade classes at Bessie Coleman School decided to have a walkathon to raise money for the computer lab. They set a goal of walking 1000 laps by the end of a week.

On Friday they collected the following results from the three classes:

**Walkathon Laps**

| Classroom | Number of Laps in One Week |
|-----------|---------------------------|
| Room 101  | 331                       |
| Room 102  | 408                       |
| Room 103  | 398                       |

About how many laps did they walk altogether? Do you think they were close to their goal of 1000 laps?

Estimating Sums                         SAB · Grade 2 · Unit 14 · Lesson 2    **719**

*Student Activity Book - Page 719*

Name _____ Date _____

**2.** The third graders wanted to have a walkathon, too. They set a goal of walking 1200 laps in four days. After two days of walking, the students recorded the total number of laps for each third grade class:

**Walkathon Laps**

| Classroom | Number of Laps in Two Days |
|-----------|---------------------------|
| Room 201  | 158                       |
| Room 202  | 123                       |
| Room 203  | 201                       |

If they walk about the same amount for the next 2 days, do you think they will reach their goal of 1200 laps in 4 days? Why or why not?

**720**    SAB · Grade 2 · Unit 14 · Lesson 2                         Estimating Sums

*Student Activity Book - Page 720*

**\*Answers and/or discussion are included in the lesson.**

## Student Activity Book

### Setting Goals (SAB pp. 719–720)
### Questions 1–2

1.\* Possible response: We found friendly numbers by finding the closest hundred for each number: 331 is close to 300, 408 is close to 400, and 398 is close to 400. We added $300 + 400 + 400$ on the number line and we got 1100 laps, so they reached their goal.

2.\* If the number of laps for 2 days are doubled and totaled, the third graders are not on pace to reach a goal of 1200 laps in 4 days. Using friendly numbers and adding hundreds and tens:

$160 + 160 + 120 + 120 + 200 + 200$

$= 100 + 100 + 100 + 100 + 200 + 200 + 60 + 60 + 20 + 20$

$= 800 + 160$

$= 960$ laps

**Find the Best Answer (SAB pp. 721–723)**
**Questions 1–6**

Responses will vary.

1. Mark's. Possible response: The friendly number for 528 is 530 and the friendly number for 49 is 50. 530 + 50 = 580. Mark's answer of 577 is closer to 580.

2. Peter's. Possible response: I added hundreds: 600 + 400 = 1000. Frank couldn't be right because he said 10,610 and 10,000 is a lot bigger than 1000.

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Name _____ Date _____

**Find the Best Answer**

For each problem, show or tell how you estimated the sum. Then decide which answer is more reasonable.

1. After two weeks, Room 101 had a total of 528 laps. Room 102 had 49 more laps than Room 101. Carla said that Room 102 had 9118 laps. Mark said they had 577 laps.

Which answer is more reasonable? _____
How do you know?

2. Mr. Smith's class walked 619 laps around the school. Mrs. Dewey's class walked 451 laps. Peter said the two classes walked about 1000 laps altogether. Frank said they walked about 10,610 laps.

Which answer is more reasonable? _____
How do you know?

Estimating Sums                    SAB · Grade 2 · Unit 14 · Lesson 2   **721**

*Student Activity Book* - Page 721

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3. Rosa's. Possible response: I found the closest hundred to 279 is 300 and the closest hundred to 132 is 100. I added 300 + 100 = 400. Rosa is closer.

4. Under 500. Possible response: The friendly number for 194 is 200 and the friendly number for 56 is 60. 200 + 60 = 260, so under 500 is more reasonable.

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Name _____ Date _____

3. On Tuesday, Mr. Moreno's class walked 279 laps around the school. On Wednesday, they walked 132 laps. Emily said that they had walked about 500 laps by the end of Wednesday but Rosa thought they had walked about 400 laps.

Which answer is more reasonable? _____
How do you know?

4. Mrs. Cook's class recorded 194 laps. On Wednesday, they had 56 more laps. Do you think the new total will be under 500 or over 500?

Circle the answer that you think is more reasonable.

under 500            over 500

Show or tell how you estimated the sum.

**722**  SAB · Grade 2 · Unit 14 · Lesson 2                    Estimating Sums

*Student Activity Book* - Page 722

Name _____ Date _____

**5.** Mrs. Dewey's class walked 451 laps in one week. If they walked about the same number of laps the second week, estimate how many laps they would walk in 2 weeks.

Circle the answer that you think is more reasonable.

under 1000          over 1000

Show or tell how you estimated the sum.

**6.** There are 500 students in the walkathon. They set a goal of 1000 laps. If each student walks 3 laps, will they reach their goal?

Circle the answer that you think is more reasonable:

No, they will have less than 1000 laps.

Yes, they will have more than 1000 laps.

Show or tell how you estimated the sum.

**Estimating Sums**                SAB · Grade 2 · Unit 14 · Lesson 2    **723**

*Student Activity Book* - Page 723

**5.** Under 1000. Possible response: I found the friendly number for 451 is 450. I added $450 + 450 = 900$. I used a number line and started at 400 and made 4 jumps of 100 and 2 jumps of 50 and I landed on 900, so the answer is under 1000.

**6.** Yes, they would have over 1000 laps. Possible response: I added $500 + 500 + 500 = 1500$. I used base-ten pieces.

**Is it Reasonable (SAB pp. 725–727)**
**Questions 1–3**

Responses will vary.

1. **A.** No. Possible response: I added the hundreds: 400 + 300 = 700. Levi's answer is too far away from 700.

   **B.** Yes. Possible response: The friendly number for 399 is 400 and the friendly number for 219 is 200. I added 400 + 200 = 600. Luis' answer is close to 600.

2. under 1000. Possible response: My estimate is 700. The friendly number for 416 is 400 and the friendly number for 289 is 300. I added 400 + 300 = 700. That's under 1000.

3. **A.** Adding the hundreds does not give you a reasonable estimate. 600 sandwiches is not enough.

   **B.** A better estimate is 800. I used friendly numbers. I added 200 + 200 + 300 + 100 = 800.

   **C.** about $1600. I used friendly numbers. The total number of sandwiches is about 800 and they cost about $2 each. I added 800 + 800 = $1600.

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Name _____ Date _____

**Is it Reasonable**

1. Pretend you are the teacher. Show or tell how to estimate the answer to each student's problem. Use your estimates to see if the students' answers are reasonable.

   **A.** Levi's Solution:
   $$\begin{array}{r} 475 \\ + 338 \\ \hline 7113 \end{array}$$

   Show or tell how you estimated the sum.

   Is Levi's solution reasonable? _____

   **B.** Luis's Solution:
   $$\begin{array}{r} 399 \\ + 219 \\ \hline 618 \end{array}$$

   Show or tell how you estimated the sum.

   Is Luis's answer reasonable? _____

*Student Activity Book* - Page 725

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Name _____ Date _____

2. There were 416 people watching the walkathon and 289 people participating in the walkathon. About how many people were at the walkathon?

   Circle the answer that you think is more reasonable:

   under 1000          over 1000

   Show or tell how you estimated the sum.

3. Last year, these sandwiches were served at a luncheon after the walkathon:

**Number of Sandwiches**

| Kind of Sandwich | Number of Sandwiches |
|---|---|
| cheese | 215 |
| ham | 187 |
| tuna | 295 |
| peanut butter & jelly | 105 |

The teachers are thinking about how many sandwiches they will need to order if about the same number of people will be eating this year.

*Student Activity Book* - Page 726

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Name _____ Date _____

**A.** Mara adds the hundreds and thinks they should order 600 sandwiches for this year's luncheon. Is this a reasonable estimate? Why or why not?

**B.** Show or tell how you would estimate the total number of sandwiches needed.

**C.** Each sandwich costs $2.15. About how much should the teachers expect to spend on all the sandwiches? Show or tell how you know.

*Student Activity Book* - Page 727

### Estimation Practice

**Homework**

*Dear Family Member:*
In class, we are learning to use estimation to check for reasonable answers to addition problems. Ask your child to explain how he or she estimated the sums for each problem.
Thank you.

**For Questions 1–3, estimate the answer for each problem. Circle the estimate that you think is the closest. Show or tell how you estimated the answer.**

1. 126 first graders, 268 second graders, and 239 third graders completed laps around the school on the walkathon. What is the closest estimate for the number of students who participated?

    **A.** 1000     **B.** 300     **C.** 600

    Show or tell how you estimated the sum.

2. Two second grade classes reported their totals for the week. One class walked 458 laps and the other class walked 499 laps. What is the closest estimate for the number of laps they walked altogether?

    **A.** 1000     **B.** 8157     **C.** 600

    Show or tell how you estimated the sum.

*Teacher Guide* - Page 1

3. The second grade classes walked a total of 624 laps by Thursday. On Friday they walked 279 additional laps. Estimate the total number of laps they walked during the week.

    **A.** 1200     **B.** 400     **C.** 900

    Show or tell how you estimated the sum.

4. There are 4 second grade classes at Parker Elementary. They want to walk 1200 laps by the end of the week. The table below shows how many laps each class completed by Friday. Did they reach their goal of 1200 laps?

    **Walkathon Laps by Room**

    | Classroom | Number of Laps in One Week |
    |-----------|---------------------------|
    | Room 117  | 284 |
    | Room 119  | 198 |
    | Room 121  | 187 |
    | Room 123  | 201 |

    Show or tell how you estimated the sum.

*Teacher Guide* - Page 2

## Teacher Guide

### Estimation Practice (TG pp. 1–3)
### Homework
### Questions 1–5

Responses may vary.

1. 600; Possible response: I found friendly numbers: 126 is close to 100, 268 is close to 300, and 239 is close to 200. $100 + 300 + 200 = 600$.

2. 1000; Possible response: I found friendly numbers: 458 and 499 are both close to 500. $500 + 500 = 1000$.

3. 900; Possible response: I added the hundreds and tens: $600 + 200 = 800$; $20 + 70 = 90$; and $800 + 90 = 890$. That's close to 900.

4. No. Possible response: I found friendly numbers: 284 is close to 300, 198 is close to 200, 187 is close to 200, and 201 is close to 200. I added $300 + 200 + 200 + 200 = 900$. That is far from 1200.

5. Under 1000. Possible response: I found friendly numbers: 98 is close to 100, 115 is close to 100, 85 is close to 100, 186 is close to 200, and 104 is close to 100. I added $100 + 100 + 100 + 200 + 100 = 600$. That's under 1000.

5. The chart below shows how many laps Mrs. Dewey's class walked each day. Estimate the number of laps they walked for the week.

    **Walkathon Laps by Day**

    | Day of the Week | Number of Laps |
    |-----------------|----------------|
    | Monday    | 98  |
    | Tuesday   | 115 |
    | Wednesday | 85  |
    | Thursday  | 186 |
    | Friday    | 104 |

    Circle the answer that you think is more reasonable.

    under 1000          over 1000

    Show or tell how you estimated the sum.

*Teacher Guide* - Page 3