Module 1   Number Sense
Lesson 5   Estimation

Decide if an exact number or an estimate is needed.

1.   How many ounces are in three pounds?

2.   About how much does the suitcase weigh?

3.   About how many nails are in the box?

4.   Approximately how many people visited the museum last year?

Use Front-End Estimation to estimate each sum or difference. Then use Front-End Estimation with rounding to estimate each sum or difference.

5. $619 + 437$

6. $1,144 - 376$

7. $304 - 165$

8. $1,081 + 2,392$

9. $2,301 + 4,679$

10. $9,516 - 8,112$

Round each number to the given place value.

11.   Round to the nearest 10.
      101   452

12.   Round to the nearest 100.
      623   1,286

13.   Round to the nearest 1,000.
      4,399   12,602

14.   Round to the nearest 10,000.
      14,866   15,121

Estimate to solve each problem.

15. Kevin practiced guitar for 57 minutes on Monday, 84 minutes on Wednesday, and 31 minutes on Thursday. About how long did he practice altogether?

16. Sophie earned $104 baby sitting. If she earns $8 per hour, about how many hours did she baby sit?

17. The Perez family drove 1,871 miles on their vacation. They bought a total of 96 gallons of gas. About how many miles did they travel on each gallon of gas?

18. Mr. Kim has 18 employees. Each employee works 48 hours per week. About how many hours in total do the employees work in a year?

Journal

1. When is it appropriate to use estimation?

2. When estimating the sum of two three-digit numbers, which is more likely to give a result that is closer to the actual sum: front-end estimation or rounding to the nearest hundred? Justify your answer with an example.

3. Explain the difference between using rounding and compatible numbers in division problems. Provide an example.

Cumulative Review

Using mental math, evaluate each of the following.

1. $(36 + 50 + 64) \div (30 \div 6)^2$

2. $[(52 + 8) + (14 \times 5 \times 2)] \div 50$

3. $[15 + (7 \times 5)] - 2(75 \div 15)^2$

4. $[(9 \times 2) - 8] \times [5^2 - (60 \div 4)] - 4^2$

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Use the Distributive Property to model the following.

5.   9(27)

6.   (24)(22)

7.   7(59)

8.   18·33

Use the Distributive Property to solve the following.

9.   Anna did 9 sets of 36 sit-ups. How many sit-ups did she do in all?

10.   At a barbecue, Mr. Lewis cooked 19 packages of 12 hotdogs. How many hotdogs did he cook in all?