Lesson Objective: Students will solve problems involving operations with whole numbers, perform computations with whole numbers, and review how to check solutions.

Warm Up

① **12.** $2219 + 872$ **13.** $\begin{array}{r} 5351 \\ + 1730 \end{array}$ **14.** $3968 + 1879$

15. $7694 - 5232$ **16.** $9165 - 4729$ **17.** $\begin{array}{r} 2416 \\ - 1983 \end{array}$

② **18.** $\begin{array}{r} 84 \\ \times 37 \end{array}$ **19.** 124×56 **20.** 419×236

③ **21.** $837 \div 27$ **22.** $\dfrac{588}{84}$ **23.** $7440 \div 124$

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September 9, 2015

Lesson 1.1

Essential Question How do you know which operation to choose when solving a real-life problem?

Lesson 1.1   September 9, 2015

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Self-Evaluation Scale

Score	Description
4	I can teach other students how to solve problems involving operations with whole numbers, perform computations with whole numbers, and review how to check solutions.
3	I can solve problems involving operations with whole numbers, perform computations with whole numbers, and review how to check solutions.
2	I recognize, but still need help to solve problems involving operations with whole numbers, perform computations with whole numbers, and review how to check solutions.
1	I do not know how to solve problems involving operations with whole numbers, perform computations with whole numbers, and review how to check solutions.

Activity 1

With a partner, work on Activity 1 on pages 3 & 4 of your Big Ideas Record and Practice Journal.

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Activity 2 & 3

With a partner, work on Activity 2 & 3 on pages 4 & 5 of your Big Ideas Record and Practice Journal.

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Operation	Words	Algebra
Addition	the *sum* of	$a + b$
Subtraction	the *difference* of	$a - b$
Multiplication	the *product* of	$a \times b \qquad a \cdot b$
Division	the *quotient* of	$a \div b \qquad \dfrac{a}{b} \qquad b\overline{)a}$

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EXAMPLE 1   Adding and Subtracting Whole Numbers
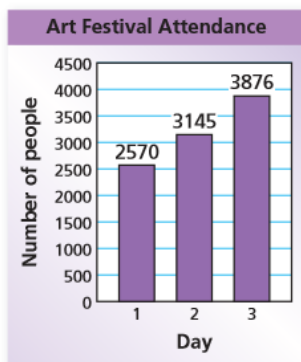
The bar graph shows the attendance at a three-day art festival.

a. What is the total attendance for the art festival?

You want to find the total attendance for the three days. In this case, the phrase *total attendance* indicates you need to find the sum of the daily attendances.

Line up the numbers by their place values, then add.

⋰ The total attendance is 9591 people.

$$\begin{array}{r} \scriptstyle 1\,11 \\ 2570 \\ 3145 \\ +\ 3876 \\ \hline 9591 \end{array}$$

b. What is the increase in attendance from Day 1 to Day 2?

You want to find how many more people attended on Day 2 than on Day 1. In this case, the phrase *how many more* indicates you need to find the difference of the attendances on Day 2 and Day 1.

Line up the numbers by their place values, then subtract.

⋰ The increase in attendance from Day 1 to Day 2 is 575 people.

$$\begin{array}{r} \scriptstyle 10 \\ \scriptstyle 2\,\cancel{0}\,14 \\ 3\cancel{1}\cancel{4}5 \\ -\ 2570 \\ \hline 575 \end{array}$$

Art Festival Attendance

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EXAMPLE **2** **Multiplying Whole Numbers**

A school lunch contains 12 chicken nuggets. Ninety-five students buy the lunch. What is the total number of chicken nuggets served?

You want to find the total number of chicken nuggets in 95 groups of 12 chicken nuggets. The phrase *95 groups of 12* indicates you need to find the product of 95 and 12.

$$
\begin{array}{r}
12 \\
\times\ 95 \\
\hline
60 \\
108 \\
\hline
1140
\end{array}
$$

Multiply 12 by the ones digit, 5.
Multiply 12 by the tens digit, 9.
Add.

∴ There were 1140 chicken nuggets served.

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On Your Own

Find the value of the expression. Use estimation to check your answer.

1. $1745 + 682$ **2.** $912 - 799$ **3.** 42×118

DMSB

EXAMPLE 3 Dividing Whole Numbers: No Remainder

You make 24 equal payments for a go-kart. You pay a total of $840. How much is each payment?

You want to find the number of groups of 24 in $840. The phrase *groups of 24 in $840* indicates you need to find the quotient of 840 and 24.

Use long division to find the quotient.
Decide where to write the first digit of the quotient.

$$\frac{?}{24)\overline{840}}$$ Do not use the hundreds place because 24 is greater than 8.

$$\frac{?}{24)\overline{840}}$$ Use the tens place because 24 is less than 84.

So, divide the tens and write the first digit of the quotient in the tens place.

$$\begin{array}{r} 3 \\ 24)\overline{840} \\ -72 \\ \hline 12 \end{array}$$ Divide 84 by 24: There are three groups of 24 in 84.
Multiply 3 and 24.
Subtract 72 from 84.

Next, bring down the 0 and divide the ones.

$$\begin{array}{r} 35 \\ 24)\overline{840} \\ -72\downarrow \\ \hline 120 \\ -120 \\ \hline 0 \end{array}$$ Divide 120 by 24: There are five groups of 24 in 120.
Multiply 5 and 24.
Subtract 120 from 120.

The quotient of 840 and 24 is 35.

∴ So, each payment is $35.