

1.1 WHOLE NUMBER OPERATIONS

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

4 MAIN OPERATIONS IN MATH

ADDITION	SUBTRACTION	MULTIPLICATION	DIVISION
all together combined in all perimeter sum total join	decreased by difference fewer than left less minus take away	of product times triple twice	dividend quotient average

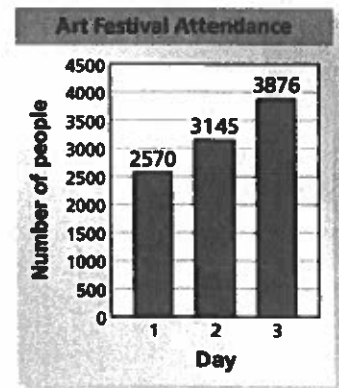
EXAMPLE 1

The bar graph shows the attendance at a 3-day art festival.

1) What is the total attendance for the art festival?

$$\begin{array}{r} 111 \\ 2570 \\ 3145 \\ +3876 \\ \hline 9591 \end{array}$$

The total attendance for the art festival is 9,591 people.



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

$$\begin{array}{r} 10 \\ 3145 \\ -2570 \\ \hline 575 \end{array}$$

The increase in attendance is 575 people. multiply

EXAMPLE 2

A school lunch contains 12 chicken nuggets. Ninety-five students buy the lunch. What is the total number of chicken nuggets served? want to find the total number of nuggets in 12 groups of 95 nuggets

$$\begin{array}{r} 112 \\ \times 95 \\ \hline 160 \\ 1080 \\ \hline 1140 \end{array}$$

There were 1,140 chicken nuggets served.

Find the value of the expression.

1) $1745 + 682$

$$\begin{array}{r} 11 \\ 1745 \\ +682 \\ \hline 2427 \end{array}$$

2) $912 - 799$

$$\begin{array}{r} 10 \\ 912 \\ -799 \\ \hline 113 \end{array}$$

3) 42×118

$$\begin{array}{r} 31 \\ 118 \\ \times 42 \\ \hline 236 \\ 4720 \\ \hline 4956 \end{array}$$

You want to find the number of groups of 24 in 840. ← Divide

EXAMPLE 3

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

Divisor

$$\begin{array}{r} 2 \\ 24 \\ \times 5 \\ \hline 120 \end{array}$$

$$\begin{array}{r} 35 \\ 24 \overline{)840} \\ \underline{-72} \\ 120 \\ \underline{-120} \\ 0 \end{array}$$

← Quotient
← Dividend



Each payment costs \$35.

Find the value of the expression.

1) $\frac{986}{58}$

$$\begin{array}{r} 17 \\ 58 \overline{)986} \\ \underline{-58} \\ 406 \\ \underline{-406} \\ 0 \end{array}$$

2) $234 \div 9$

$$\begin{array}{r} 26 \\ 9 \overline{)234} \\ \underline{-18} \\ 54 \\ \underline{-54} \\ 0 \end{array}$$

3) $840 \div 105$

$$\begin{array}{r} 8 \\ 105 \overline{)840} \\ \underline{-840} \\ 0 \end{array}$$

$$\begin{array}{r} 5 \\ 58 \\ \times 1 \\ \hline 406 \end{array}$$

EXAMPLE 4

A 301-foot-high swing at an amusement park can take 64 people on each ride. A total of 8983 people ride the swing today. All the rides are full except for the last ride. How many rides are given? How many people are on the last ride?

$$\begin{array}{r} 140 \text{ R } 23 \\ 64 \overline{)8983} \\ \underline{-64} \\ 258 \\ \underline{-256} \\ 23 \\ \underline{-0} \\ 23 \end{array}$$

← People on the last ride



141 rides were given at the amusement park.
23 people were on the last ride.

Find the value of the expression.

1) $\frac{6096}{30}$

$$\begin{array}{r} 203 \text{ R } 6 \\ 30 \overline{)6096} \\ \underline{-60} \\ 09 \\ \underline{-0} \\ 96 \\ \underline{-90} \\ 6 \end{array}$$

2) $45,691 \div 28$

$$\begin{array}{r} 1631 \text{ R } 23 \\ 28 \overline{)45691} \\ \underline{-28} \\ 176 \\ \underline{-168} \\ 89 \\ \underline{-84} \\ 51 \\ \underline{-28} \\ 23 \end{array}$$

3) $9878 \div 42$

$$\begin{array}{r} 235 \text{ R } 8 \\ 42 \overline{)9878} \\ \underline{-84} \\ 147 \\ \underline{-126} \\ 218 \\ \underline{-210} \\ 8 \end{array}$$