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## Prerequisite; Round Three-Digit Numbers

## Study the example showing how to round a three-digit number. Then solve problems 1-6.

## Example

Round 154 to the nearest ten.


154 is between 150 and 160 . It is closer to 150 .
154 rounded to the nearest ten is 150 .

Round 154 to the nearest hundred.


154 is between 100 and 200. It is closer to 200.
154 rounded to the nearest hundred is 200.

1 Round 236 to the nearest ten.
Which tens is 236 between?

236 is between $\qquad$ and $\qquad$ .

236 is closer to $\qquad$ than $\qquad$ .

236 rounded to the nearest ten is $\qquad$ .

2 Round 236 to the nearest hundred.
Which hundreds is 236 between?
236 is between $\qquad$ and $\qquad$ .

236 is closer to $\qquad$ than $\qquad$ .

236 rounded to the nearest hundred is $\qquad$ .

## Solve.

3 Round each number.
a. 689 rounded to the nearest ten is $\qquad$ .
b. 68 rounded to the nearest hundred is $\qquad$ .
c. 945 rounded to the nearest ten is $\qquad$ .
d. 945 rounded to the nearest hundred is $\qquad$ .

4 Rachel earned $\$ 164$ babysitting last month. She earned $\$ 95$ this month. Rachel rounded each amount to the nearest $\$ 10$ to estimate how much she earned. What is each amount rounded to the nearest \$10?

## Show your work.

Solution: $\qquad$
5 Use the digits in the tiles to create a number that makes each statement true. Use each digit only once.

$$
\begin{array}{|l|l|l|l|l|l|l|l|l|}
\hline 1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 & 9 \\
\hline
\end{array}
$$

$\square \square \square$ rounded to the nearest 10 is 300 .

$\square \square \square$rounded to the nearest 100 is 500 .
$\square$ rounded to the nearest 100 is 700 .

6 There are 528 students. The school wants to order t -shirts for all the students. T-shirts come in packs of ten. Should the school round the number of students to the nearest ten or hundred so that each student gets a t-shirt? Explain.
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## Round Whole Numbers

Study the example showing how to round multi-digit numbers to estimate a sum. Then solve problems 1-6.

## Example

Round each number to the nearest thousand to estimate the sum.
$246,135+651,970$
Round 246,135 to the nearest thousand.


246,135 rounded to the nearest thousand is 246,000 .
Round 651,970 to the nearest thousand.


651,970 rounded to the nearest thousand is 652,000 .
$246,000+652,000=898,000$

1 Look at the example above. Estimate the sum by rounding each number to the nearest hundred thousand. Write the number sentence.

2 Round 45,621 to each place given below.
a. to the nearest ten $\qquad$
b. to the nearest hundred $\qquad$
c. to the nearest thousand $\qquad$
d. to the nearest ten thousand $\qquad$

## Solve.

3 Round 452,906 to each place given below.
a. to the nearest hundred thousand $\qquad$
b. to the nearest ten thousand $\qquad$
c. to the nearest thousand $\qquad$
d. to the nearest hundred $\qquad$
e. to the nearest ten $\qquad$
4 The table below shows driving distances between U.S. cities. Round each number to the nearest hundred.

|  | Actual distance (mi) | Rounded distance (mi) |
| :--- | :---: | :---: |
| Atlanta, GA to Los Angeles, CA | 2,173 |  |
| Los Angeles, CA to Seattle, WA | 1,135 |  |
| Atlanta, GA to Chicago, IL | 716 |  |
| Chicago, IL to San Francisco, CA | 2,131 |  |

5 Look at the table in problem 4. Lisa drove from Atlanta to Los Angeles to Seattle. Alex drove from Atlanta to Chicago to San Francisco. Use the rounded numbers to show who drove farther and by about how many miles.

## Show your work.

Solution: $\qquad$
6 Write numbers in the boxes below to show rounding on a number line. What place value are you rounding to?


Solution: $\qquad$
$\qquad$

## Round Whole Numbers

## Solve the problems.

1 Choose Yes or No to tell whether to round up to the greater hundred thousand.
a. 949,500 $\square$ Yes $\square$ No
b. 503,817 $\square$ Yes $\square$ No
c. 180,000 $\square$ Yes $\square$ No
d. 352,625 $\square$ Yes $\square$ No


2 Which numbers have been rounded correctly to the nearest hundred? Circle the letter for all that apply.

A $38,753 \longrightarrow 38,800$
B 38,503 $\longrightarrow 39,000$
C 38,910 $\longrightarrow 38,900$
D 38,960 $\longrightarrow 39,000$

Which digit do you look at in each number to round to the nearest hundred?


E $38,109 \longrightarrow 38,110$

3 A company spent $\$ 850,290$ on advertising last year. The company spent $\$ 872,650$ this year. Which of the following is the best estimate of how much more the company spent this year?
A $\$ 100,000$
C $\$ 22,000$
B $\$ 30,000$
D $\$ 22,400$


Tyson chose D as the correct answer. Explain how he got his answer.
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$\qquad$

## Solve.

4 Look at the table below. Round all the numbers to the same place value to complete the sentence below.

Olympic Athletes

| Year | City | Total | Female | Male |
| :--- | :--- | :---: | :---: | :---: |
| 2008 | Beijing, China | 10,942 | 4,637 | 6,305 |
| 2012 | London, Great Britain | 10,568 | 4,676 | 5,892 |

Each of the two Olympic games had about total athletes, including about $\qquad$ female athletes, and about $\qquad$ male athletes.


5 Debbie looked at problem 4 and rounded the number of female athletes in 2008 to 5,000. She rounded the number of female athletes in 2012 to 4,700 . She said that there were about 300 more female athletes in 2008. Explain why Debbie's estimate is incorrect and find a correct estimate.

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$\qquad$
$\qquad$
$\qquad$

6 In season one of Sing Off, 16,865 people tried out. In season two, 5,296 more people tried out. In season three, 1,834 fewer people tried out than in season two. Show two different ways to round and estimate the number of people who tried out in season three.
Show your work.


Solution: $\qquad$

