

Name _____



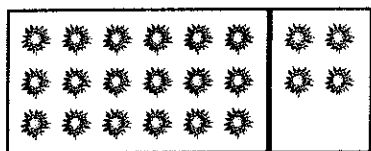
Homework & Practice 8-1

Addition Properties

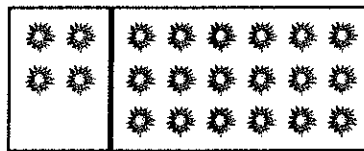
Another Look!

Commutative (Order) Property of Addition

You can add numbers in any order and the sum will be the same.



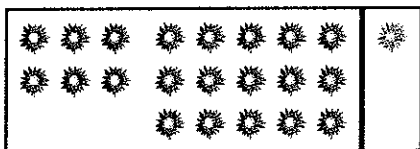
$$18 + 4 = 22$$



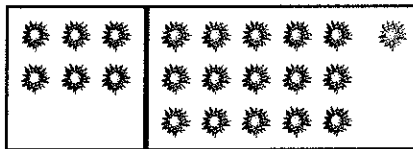
$$4 + 18 = 22$$

Associative (Grouping) Property of Addition

You can group numbers in any way and the sum will be the same.



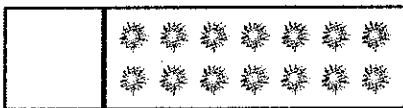
$$(6 + 15) + 1 = 22$$



$$6 + (15 + 1) = 22$$

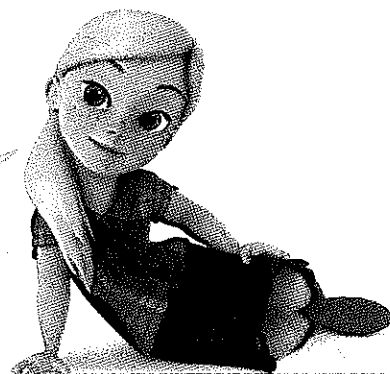
Identity (Zero) Property of Addition

The sum of any number and zero equals that same number.



$$0 + 14 = 14$$

Addition properties make it easier to add numbers.



In 1-7, write each missing number.



$$(\quad + 15) + \quad = 29$$



$$\quad + (\quad + \quad) =$$

2. $30 + 40 = 40 + \quad$

3. $\quad + 32 = 32$

4. $(48 + 27) + 3 = \quad + (27 + 3)$

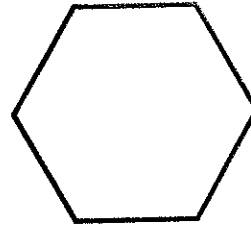
5. $29 + (22 + 27) = (29 + 22) + \quad$

6. $89 + \quad = 89$

7. $35 + 49 = \quad + 35$

8. **Construct Arguments** Jake says adding 0 to an addend does not change a sum. Is he correct? Explain. Include an equation in your explanation.

9. Draw lines onto the hexagon below to show how you can cut it into new shapes. What are the shapes you made?



10. **Use Structure** Troy wants to buy pants, shoes, and a cap. Use the Associative Property of Addition to show two ways he can add the prices to find the total cost. Then find the total.

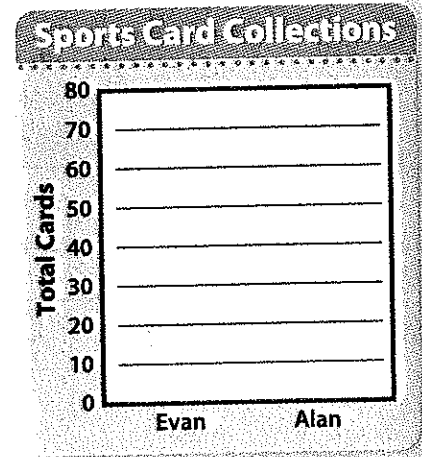
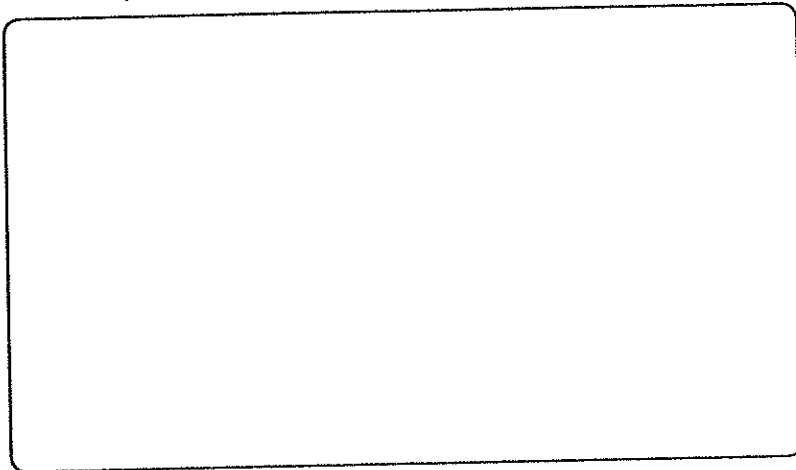
Clothing Sale	
Pants	\$35
Cap	\$15
Shoes	\$49

11. **Higher Order Thinking** Does $65 - (45 - 20) = (65 - 45) - 20$? How do you know?

12. **Model with Math** Minnie has 16 old posters and 25 new posters. Amanda has 25 old posters and 16 new posters. Who has more posters? Explain.

Assessment

13. Evan has 23 basketball cards, 37 football cards, and 10 hockey cards. Alan has 8 basketball cards, 14 football cards, and 38 hockey cards. Complete the bar graph and use properties to show how many total sports cards each person has.



Name _____



TUESDAY

Homework & Practice 8-3

Round Whole Numbers

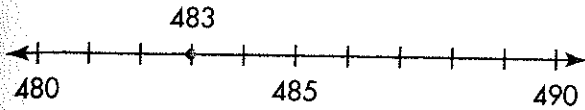
Another Look!

You can use number lines and what you know about place value to help round numbers.



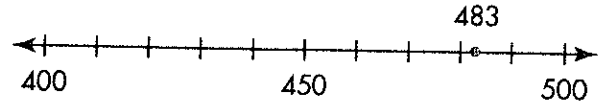
If a number is halfway between, round to the greater number.

Round 483 to the nearest ten.



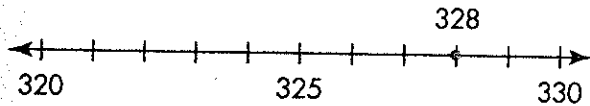
483 is closer to 480 than 490, so 483 rounds to 480.

Round 483 to the nearest 100.

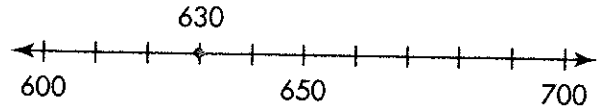


483 is closer to 500 than 400, so 483 rounds to 500.

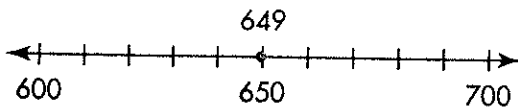
1. Round 328 to the nearest ten.



2. Round 630 to the nearest hundred.



3. Round 649 to the nearest hundred.



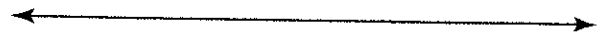
4. Round 155 to the nearest ten.



5. Round 262 to the nearest ten.



6. Round 753 to the nearest hundred.



7. Round 429 to the nearest ten and hundred.

8. Round 234 to the nearest ten and hundred.

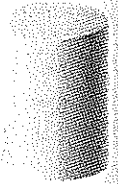
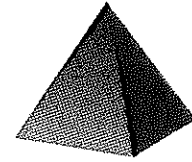
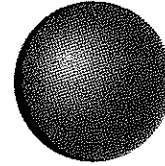
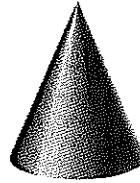
9. Use the number line to show a number which rounds to 170 when it is rounded to the nearest ten.



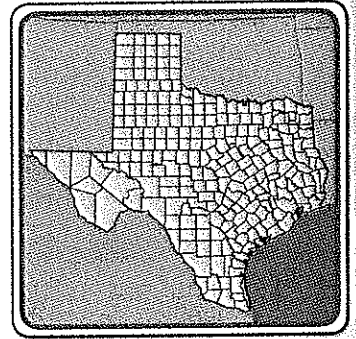
10. **Higher Order Thinking** When this 3-digit number is rounded to the nearest hundred, it rounds to 900. The digit in the ones place is the fifth odd number you count beginning with 1. The sum of the digits is 22. What is the number?

11. **Make Sense and Persevere**

I have 1 flat surface. I have 1 vertex. You can trace my flat surface to make a circle. Which shape am I? Circle the correct solid figure.



12. **Algebra** There are 254 counties in Texas. Zane rounds the number of counties to the nearest ten. What is the difference between the actual number of counties and Zane's rounded number? Solve this problem using an equation and an unknown.



Assessment

13. Mary rounds these numbers to the nearest hundred. Which numbers does she round to 400? Choose all that apply.

- 351
- 369
- 401
- 413
- 448

14. Tyrell says 753 rounds to 800. Sara says 753 rounds to 750. Owen says 753 rounds to 700. Betsy says 753 rounds to 740. Mo says 753 cannot be rounded. Which people are correct? Choose all that apply.

- Tyrell
- Sara
- Owen
- Betsy
- Mo

Name _____

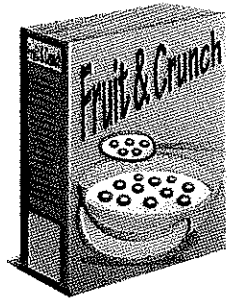


Homework & Practice 8-6
Estimate Sums

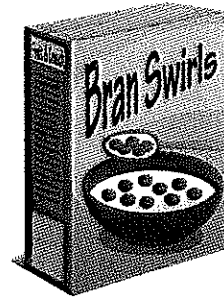
Another Look!

There is more than one way you can estimate.

The students at Silver School are saving cereal box tops.



136
box tops



178
box tops

About how many box tops have the students saved? When you find *about* how many, you estimate.

Estimate by rounding each addend. Then, add the rounded numbers.

Round to the nearest ten.

$$\begin{array}{r} 136 \rightarrow 140 \\ + 178 \rightarrow 180 \\ \hline 320 \end{array}$$

The students have saved about 320 box tops.

Round to the nearest hundred.

$$\begin{array}{r} 136 \rightarrow 100 \\ + 178 \rightarrow 200 \\ \hline 300 \end{array}$$

The students have saved about 300 box tops.

In 1–4, round to the nearest ten to estimate.

1. $144 \rightarrow$ _____
 $+ 298 \rightarrow$ _____

2. $271 \rightarrow$ _____
 $+ 487 \rightarrow$ _____

3. $225 \rightarrow$ _____
 $+ 294 \rightarrow$ _____

4. $359 \rightarrow$ _____
 $+ 107 \rightarrow$ _____

In 5–8, round to the nearest hundred to estimate.

5. $291 + 268$

6. $378 + 136$

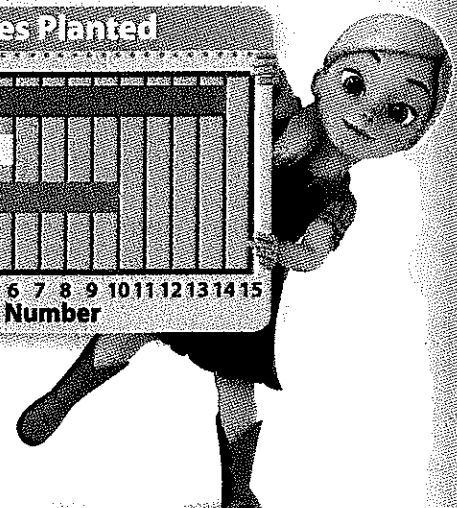
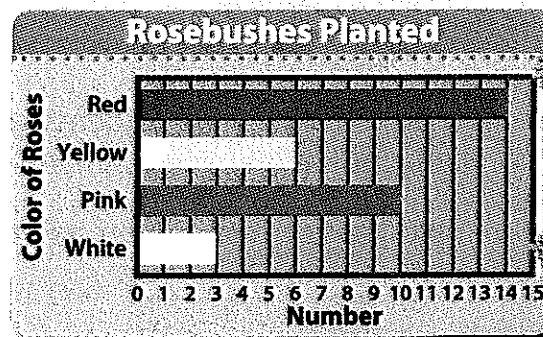
7. $436 + 309$

8. $365 + 487$

9. Critique Reasoning Sun-Yi estimated $270 + 146$ and got 320. Is her estimate reasonable? Explain.

10. AZ Vocabulary Miguel has 334 baseball cards and 278 football cards. He says, "I have 612 cards in all." Is that reasonable? Explain using the words *round* and *estimate*.

11. Paige and her friend Karla planted 4 types of rosebushes for the Dundee Community Center. The bar graph at the right shows the color and number of each bush the girls planted. How many more red and pink rosebushes were planted than yellow and white rosebushes?



12. Higher Order Thinking On Monday, Cheryl drove from Austin to Fort Worth and back to Austin. On Tuesday, she drove from Austin to Jackson. Find about how far Cheryl drove to the nearest ten miles and to the nearest hundred miles.

City	Miles Away
Memphis, TN	643
Fort Worth, TX	189
Jackson, MS	548

Assessment

13. Angelina rounds some sums to the nearest ten. Does she round correctly? Choose *Yes* or *No*.

- 13a.** $468 + 124$ is about 590. Yes No
- 13b.** $233 + 521$ is about 750. Yes No
- 13c.** $323 + 224$ is about 550. Yes No
- 13d.** $241 + 476$ is about 700. Yes No

Name _____



Help

Practice
Buddy

Tools

Games

THURSDAY

**Homework
& Practice 8-7**Estimate
Differences**Another Look!**

You can use rounding to estimate differences.



Members of the Biology Club caught 288 butterflies and 136 grasshoppers in their nets. About how many more butterflies than grasshoppers did the club catch?

When you find *about* how many, you estimate. You can estimate by rounding.

Round to the nearest hundred.

$$\begin{array}{r} 288 \rightarrow 300 \\ - 136 \rightarrow 100 \\ \hline 200 \end{array}$$

There were about 200 more butterflies than grasshoppers caught.

Round to the nearest ten.

$$\begin{array}{r} 288 \rightarrow 290 \\ - 136 \rightarrow 140 \\ \hline 150 \end{array}$$

There were about 150 more butterflies than grasshoppers caught.

In 1-8, round to the nearest hundred to estimate.

1.
$$\begin{array}{r} 584 \rightarrow \underline{\hspace{1cm}} \\ - 347 \rightarrow \underline{\hspace{1cm}} \\ \hline \end{array}$$

2.
$$\begin{array}{r} 274 \rightarrow \underline{\hspace{1cm}} \\ - 147 \rightarrow \underline{\hspace{1cm}} \\ \hline \end{array}$$

3.
$$\begin{array}{r} 615 \rightarrow \underline{\hspace{1cm}} \\ - 523 \rightarrow \underline{\hspace{1cm}} \\ \hline \end{array}$$

4.
$$\begin{array}{r} 831 \rightarrow \underline{\hspace{1cm}} \\ - 143 \rightarrow \underline{\hspace{1cm}} \\ \hline \end{array}$$

5. $422 - 142$

6. $725 - 278$

7. $682 - 224$

8. $363 - 187$

In 9-16, round to the nearest ten to estimate.

9.
$$\begin{array}{r} 146 \rightarrow \underline{\hspace{1cm}} \\ - 118 \rightarrow \underline{\hspace{1cm}} \\ \hline \end{array}$$

10.
$$\begin{array}{r} 428 \rightarrow \underline{\hspace{1cm}} \\ - 332 \rightarrow \underline{\hspace{1cm}} \\ \hline \end{array}$$

11.
$$\begin{array}{r} 588 \rightarrow \underline{\hspace{1cm}} \\ - 491 \rightarrow \underline{\hspace{1cm}} \\ \hline \end{array}$$

12.
$$\begin{array}{r} 351 \rightarrow \underline{\hspace{1cm}} \\ - 106 \rightarrow \underline{\hspace{1cm}} \\ \hline \end{array}$$

13. $654 - 585$

14. $355 - 186$

15. $274 - 207$

16. $522 - 330$

17. **Number Sense** Duncan says, "Since 6 is greater than 3, the number 65 is greater than 344." Do you agree? Explain.

18. On Friday, 537 people attended a play. On Saturday, 812 people attended the same play. About how many more people attended the play on Saturday than on Friday? How did you estimate? Show your work.

19. Andrew has the coins shown at the right. He wants to buy a comic book for \$1.00. How much more money does he need to make 1 dollar?



20. **Model with Math** Lori lives 272 miles from her grandparents, 411 miles from her aunt, and 39 miles from her cousins. About how much closer does Lori live to her grandparents than to her aunt? Explain what math you used.

21. **Higher Order Thinking** Carl is estimating $653 - 644$. His work is shown below.

$$700 - 600 = 100$$

What is the actual difference? Is Carl's estimate reasonable? If not, how could he have made a closer estimate?

Assessment

22. Tyrel recorded the elevations of three cities.

Part A

Use rounding to the nearest ten to estimate about how many more feet Dallas's elevation is than Waco's.

Part B

Write an equation to show how you solved the problem.

