

End-of-Year Test

Part 1

You may use base-ten pieces, a number line, an individual clock, and the *Addition Strategies Menu* and *Subtraction Strategies Menu* in the *Student Activity Book Reference* section.

1. Fill in the circle with $>$, $<$, or $=$ to make each statement true.

A. $9 + 5$ ○ $10 + 4$

B. $6 + 5$ ○ $15 - 2$

C. $6 + 9$ ○ $7 + 9$

D. $15 - 8$ ○ $3 + 4$

E. $14 - 8$ ○ $12 - 7$

$>$ greater than
 $<$ less than
 $=$ equal to



2. Circle True or False for each problem.

A. $3 \text{ hundreds} + 4 \text{ tens} + 2 \text{ ones} = 342$ True False

B. $216 = 2 \text{ hundreds} + 16 \text{ ones}$ True False

C. $115 = 100 + 5$ True False

D. $200 + 30 + 8 = 238$ True False

E. $10 + 10 + 10 + 1 = 30 + 1$ True False



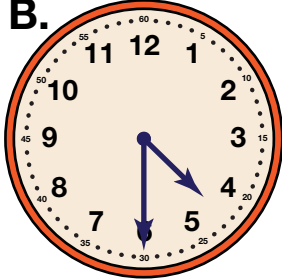
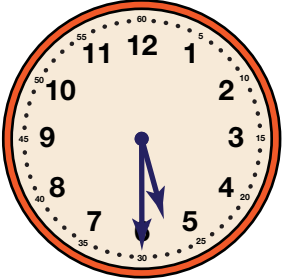
3. Place a number in the box to make the number sentence true.

A. $100 + 20 + 4 = 50 + 50 + 10 + \square + 4$

B. $10 + 10 + 10 + 10 + 10 + 2 = \square + 2$

C. $5 + 5 + 6 = \square + 6$

4. Write the time under each clock. Use your individual clocks and number lines to tell how many minutes have passed. Circle the activity you could do in that many minutes. Choose AM OR PM.

| Start Time | End Time | How Many Minutes Have Passed? | What Could Have Happened? | AM OR PM |
|--|---|-------------------------------|--|----------|
| <p>A.</p>  _____ |  _____ | | Work on math in math class Eat dinner | |
| <p>B.</p>  _____ |  _____ | | Work on homework Eat lunch | |

5. Frank had 81 newspapers to deliver. By noon, he had finished delivering 39 newspapers. Estimate how many newspapers he had left. Show or tell how to estimate the answer.

6. Diana had to solve this problem for homework:

$$\begin{array}{r} 54 \\ - 28 \\ \hline \end{array}$$

A. Use base-ten pieces to solve $54 - 28$.

B. Use expanded form to solve $54 - 28$.

C. Use the compact method to solve $54 - 28$.

$$\begin{array}{r} 54 \\ - 28 \\ \hline \end{array}$$

D. Check your answer by solving it another way or by using addition.

Show or tell how to solve each problem below.

7. A. Natasha put 50 cc of water in her graduated cylinder. She placed an object in the water and the water level went up to 82 cc. What is the volume of her object?

B. Levi put 80 cc of water in his graduated cylinder. He placed an object in the water and the water level went up to 84 cc. What is the volume of his object?

C. Whose object has the greater volume: Natasha's or Levi's?

8. Circle True or False for each problem.

A. $3 + 3 + 3 + 3 = 4 \times 3$

True

False

B. $5 + 5 + 5 + 5 = 5 \times 5$

True

False

C. $2 \times 4 = 2 + 2 + 2$

True

False

9. Emily is making 4 shirts. Each shirt will have 5 buttons. How many buttons does she need?

A. Circle the number sentence you would use to solve the problem.

$$4 + 5 =$$

$$4 \times 5 =$$

B. Show or tell how to solve the problem.

Draw a picture for each problem and write a number sentence.

10. Make 4 rows of 5.

Number sentence _____

11. Make 4 rows of 3.

Number sentence _____

Circle True or False for each statement. Show or tell how you know.

12. 3 rows of 5 = 5 rows of 3 True False

13. 3 rows of 3 = 2 rows of 4 True False

Part 2

You may use a number line, base-ten pieces, a ruler, pattern blocks, and the *200 Chart*, *Addition Strategies Menu* and *Subtraction Strategies Menu* in the *Student Activity Book* Reference section.

14. Circle all the number sentences that have an even number for the sum.

A. $4 + 4$

B. $8 + 8$

C. $3 + 3 + 1$

D. $9 + 9$

E. $7 + 7 + 1$

F. $1 + 1 + 1$

Solve each problem and write a number sentence. Show or tell how you solved each problem. Remember to label your answers.

- 15.** Nisha bought 5 rows of stickers. Each row has 5 stickers. Each sticker costs 3 cents.

A. How many stickers did Nisha buy?

Number sentence _____

B. What is the total cost of all the stickers?

Number sentence _____

Solve each problem and write a number sentence. Show or tell how you solved each problem. Remember to label your answers.

- 16.** Chris has 3 cups. He put 6 beans in each cup. How many beans does he have?

Number sentence _____

- 17.** Rosa has 20 apples. She wants to give each of her friends 4 apples. How many friends can share the apples?

Number sentence _____

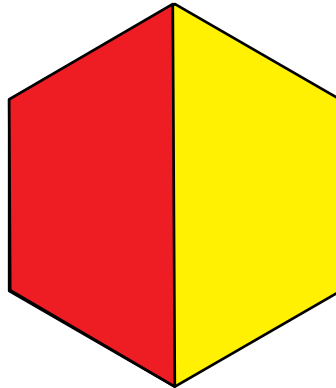
- 18.** The zookeeper has 16 bananas. He wants to give each monkey a fair share of the bananas. If there are 4 monkeys, how many bananas will each monkey get?

Number sentence _____

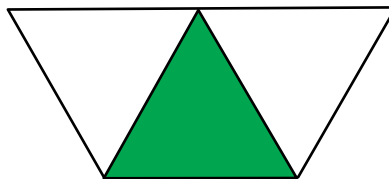
- 19.** Look at the pictures of the shapes. Use the words in the box to fill in the spaces with the correct answers.

half fourth third sixth eighth

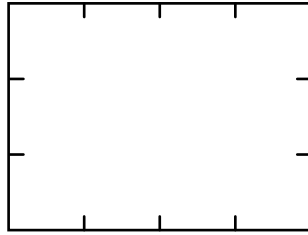
- A.** The red trapezoid is one-_____ of the yellow hexagon.



- B.** The green triangle is one-_____ of the red trapezoid.



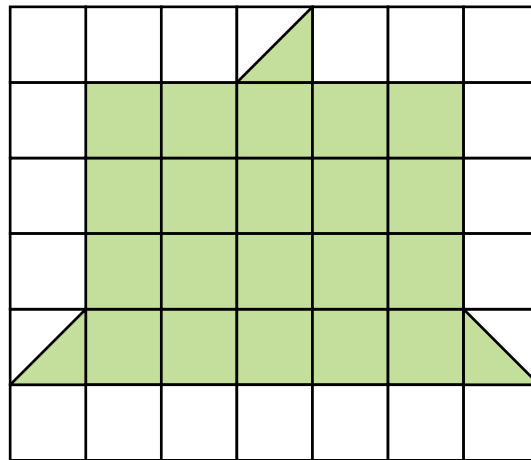
20. This is a whole.



A. Use a ruler and the tick marks to draw a grid on the rectangle. What is the area of the rectangle?

B. Shade in one-half of the rectangle. How many squares did you shade?

21. Find the area of the shape below. Remember to include units in your answer.



Area _____

22. Solve the problems below two different ways: use a mental math strategy and a paper-and-pencil method.

A. 364
 + 217

Mental Math Strategy

Paper-and-Pencil Method

B. 786
 - 329

Mental Math Strategy

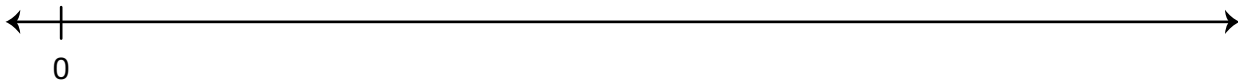
Paper-and-Pencil Method

23. Fill in the missing values in the Rule Machine. Write the rule.

| Rule: | |
|-------|--------|
| Input | Output |
| 1 | 2 |
| 3 | 6 |
| 4 | |
| 6 | 12 |
| | 16 |
| 10 | |

24. Model the number on the number line. Write a number sentence that shows how the base-ten hopper hopped on the number line.

A base-ten hopper made 2 hops of 100, 3 hops of 10, and 4 hops of 1. What number did it land on?



Number sentence _____

25. Place the numbers in order from smallest to largest.

A. 922, 1045, 958

B. 348, 299, 801

C. 1004, 1010, 987

Name _____ Date _____

End-of-Year Test

Part 1

You may use base-ten pieces, a number line, an individual clock, and the *Addition Strategies Menu* and *Subtraction Strategies Menu* in the *Student Activity Book* Reference section.

1. Fill in the circle with $>$, $<$, or $=$ to make each statement true.


A. $9 + 5$ ○ $10 + 4$
 B. $6 + 5$ ○ $15 - 2$
 C. $6 + 9$ ○ $7 + 9$
 D. $15 - 8$ ○ $3 + 4$
 E. $14 - 8$ ○ $12 - 7$

2. Circle True or False for each problem.

A. 3 hundreds + 4 tens + 2 ones = 342 True False
 B. $216 = 2$ hundreds + 16 ones True False
 C. $115 = 100 + 5$ True False
 D. $200 + 30 + 8 = 238$ True False
 E. $10 + 10 + 10 + 1 = 30 + 1$ True False

3. Place a number in the box to make the number sentence true.

A. $100 + 20 + 4 = 50 + 50 + 10 + \square + 4$
 B. $10 + 10 + 10 + 10 + 10 + 2 = \square + 2$
 C. $5 + 5 + 6 = \square + 6$



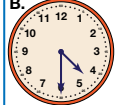


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Name _____ Date _____

4. Write the time under each clock. Use your individual clocks and number lines to tell how many minutes have passed. Circle the activity you could do in that many minutes. Choose AM or PM.

| Start Time | End Time | How Many Minutes Have Passed? | What Could Have Happened? | AM or PM |
|--|--|-------------------------------|--|----------|
|  _____ |  _____ | 45 minutes | Work on math in math class Eat dinner | AM |
|  _____ |  _____ | 60 minutes | Work on homework Eat lunch | PM |

5. Frank had 81 newspapers to deliver. By noon, he had finished delivering 39 newspapers. Estimate how many newspapers he had left. Show or tell how to estimate the answer.

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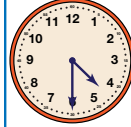

End-of-Year Test (TG pp. 1–11)

Questions 1–25

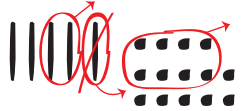
Part 1

1. A. =
 B. <
 C. <
 D. =
 E. >
2. A. True
 B. True
 C. False
 D. True
 E. True
3. A. 10
 B. 50
 C. 10

4.

| Start Time | End Time | How Many Minutes Have Passed? | What Could Have Happened? | AM or PM |
|---|--|-------------------------------|--|----------|
|  10:15 |  11:00 | 45 minutes | Work on math in math class Eat dinner | AM |
|  4:30 |  5:30 | 60 minutes | Work on homework Eat lunch | PM |

5. 40 newspapers. Responses will vary. Possible response: I used friendly numbers. I rounded 81 to 80 and 39 to 40. I subtracted $80 - 40 = 40$ newspapers.

6. A. 
$$\begin{array}{r} 54 \\ -28 \\ \hline 26 \end{array}$$

B. $54 = 50 + 4 = 40 + 14$
 $28 = 20 + 8 = 20 + 8$

$$\begin{array}{r} 40 + 14 \\ -20 + 8 \\ \hline 20 + 6 = 26 \end{array}$$

C.
$$\begin{array}{r} 414 \\ \cancel{54} \\ -28 \\ \hline 26 \end{array}$$

D. Responses may vary. Possible response:

$$\begin{array}{r} 28 \\ +26 \\ \hline 54 \end{array}$$

Strategies may vary for **Questions 7–9**. Possible strategies are shown for each problem.

7. **A.** 32 cc. Possible strategy: I started at 50 and counted up to 82 by tens and ones. My answer is 32 cc.
B. 4 cc. Possible strategy: I started at 80 and counted up to 84. My answer is 4 cc.
C. Natasha’s object has a greater volume. Her object is 32 cc and Levi’s object is 4 cc.
8. **A.** True
B. False
C. False

Name _____ Date _____

6. Diana had to solve this problem for homework:

$$\begin{array}{r} 54 \\ -28 \\ \hline \end{array}$$

A. Use base-ten pieces to solve $54 - 28$.

B. Use expanded form to solve $54 - 28$.

C. Use the compact method to solve $54 - 28$.

$$\begin{array}{r} 54 \\ -28 \\ \hline \end{array}$$

D. Check your answer by solving it another way or by using addition.

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Name _____ Date _____

Show or tell how to solve each problem below.

7. **A.** Natasha put 50 cc of water in her graduated cylinder. She placed an object in the water and the water level went up to 82 cc. What is the volume of her object?

B. Levi put 80 cc of water in his graduated cylinder. He placed an object in the water and the water level went up to 84 cc. What is the volume of his object?

C. Whose object has the greater volume: Natasha’s or Levi’s?

8. Circle True or False for each problem.

A. $3 + 3 + 3 + 3 = 4 \times 3$ True False

B. $5 + 5 + 5 + 5 = 5 \times 5$ True False

C. $2 \times 4 = 2 + 2 + 2$ True False

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Name _____ Date _____

9. Emily is making 4 shirts. Each shirt will have 5 buttons. How many buttons does she need?

A. Circle the number sentence you would use to solve the problem.

$4 + 5 =$ $4 \times 5 =$

B. Show or tell how to solve the problem.

Draw a picture for each problem and write a number sentence.

10. Make 4 rows of 5.

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Number sentence _____

11. Make 4 rows of 3.

Number sentence _____

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Name _____ Date _____

Circle True or False for each statement. Show or tell how you know.

12. 3 rows of 5 = 5 rows of 3 True False

13. 3 rows of 3 = 2 rows of 4 True False

Part 2

You may use a number line, base-ten pieces, a ruler, pattern blocks, and the *200 Chart*, *Addition Strategies Menu* and *Subtraction Strategies Menu* in the *Student Activity Book Reference* section.

14. Circle all the number sentences that have an even number for the sum.


A. $4 + 4$ B. $8 + 8$
 C. $3 + 3 + 1$ D. $9 + 9$
 E. $7 + 7 + 1$ F. $1 + 1 + 1$

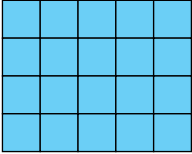
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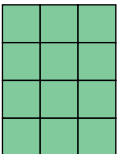
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9. A. $4 + 5 =$ $4 \times 5 =$
 B. Responses will vary. Possible response:

 $5 + 5 + 5 + 5 = 20$ buttons

10. 
 Number sentence: $4 \times 5 = 20$

11. 
 Number sentence: $4 \times 3 = 12$

12. True. Possible response: 3 rows of 5 = 15 and 5 rows of 3 = 15.

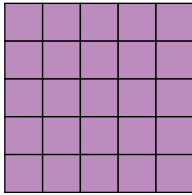
13. False. Possible response: 3 rows of 3 = 9 and 2 rows of 4 = 8.

Part 2

14. A. $4 + 4$ B. $8 + 8$
 C. $3 + 3 + 1$ D. $9 + 9$
 E. $7 + 7 + 1$ F. $1 + 1 + 1$

For **Questions 15–18**, solutions may vary. Possible solutions are given.

15. A. 25 stickers. Possible solution:



Number sentence:
 $5 + 5 + 5 + 5 + 5 = 25$ stickers

B. 75¢

| | | | | |
|---|---|---|---|---|
| 3 | 3 | 3 | 3 | 3 |
| 3 | 3 | 3 | 3 | 3 |
| 3 | 3 | 3 | 3 | 3 |
| 3 | 3 | 3 | 3 | 3 |
| 3 | 3 | 3 | 3 | 3 |

Possible solution: I know that 3×25 is the same as 25×3 , so I added 25 three times. If I have 3 quarters, that's 75, so the answer is 75¢.

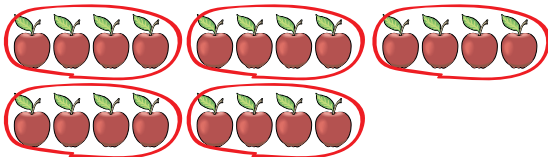
Number sentence: $25 \text{ stickers} \times 3¢ = 75¢$

16. 18 beans. Possible solution:



Number sentence:
 $3 \text{ cups} \times 6 \text{ beans} = 18 \text{ beans}$

17. 5 friends. Possible solution:



Number sentence:
 $20 \text{ apples} \div 4 \text{ apples per friend} = 5 \text{ friends}$

Name _____ Date _____

Solve each problem and write a number sentence. Show or tell how you solved each problem. Remember to label your answers.

15. Nisha bought 5 rows of stickers. Each row has 5 stickers. Each sticker costs 3 cents.

A. How many stickers did Nisha buy?

Number sentence _____

B. What is the total cost of all the stickers?

Number sentence _____

Solve each problem and write a number sentence. Show or tell how you solved each problem. Remember to label your answers.

16. Chris has 3 cups. He put 6 beans in each cup. How many beans does he have?

Number sentence _____

17. Rosa has 20 apples. She wants to give each of her friends 4 apples. How many friends can share the apples?

Number sentence _____

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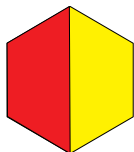
18. The zookeeper has 16 bananas. He wants to give each monkey a fair share of the bananas. If there are 4 monkeys, how many bananas will each monkey get?

Number sentence _____

19. Look at the pictures of the shapes. Use the words in the box to fill in the spaces with the correct answers.

half fourth third sixth eighth

- A. The red trapezoid is one-_____ of the yellow hexagon.



- B. The green triangle is one-_____ of the red trapezoid.



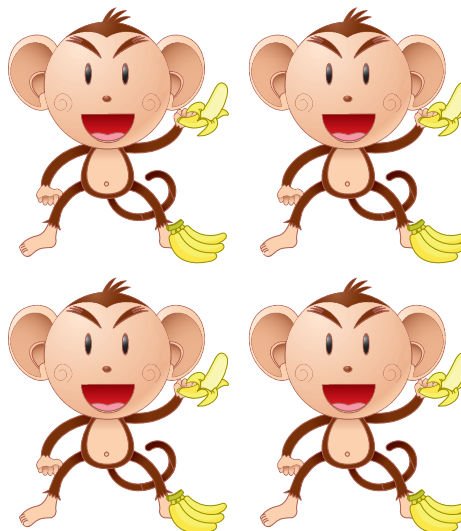
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18. 4 bananas. Possible solution:



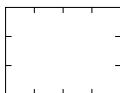
Number sentence:

$16 \text{ bananas} \div 4 \text{ monkeys} = 4 \text{ bananas}$

19. A. half
 B. third
20. A. 12 square units
 B. 6 squares
21. Area: $21\frac{1}{2}$ square units

Name _____ Date _____

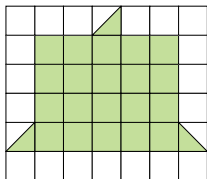
20. This is a whole.



- A. Use a ruler and the tick marks to draw a grid on the rectangle. What is the area of the rectangle?

- B. Shade in one-half of the rectangle. How many squares did you shade?

21. Find the area of the shape below. Remember to include units in your answer.



Area _____

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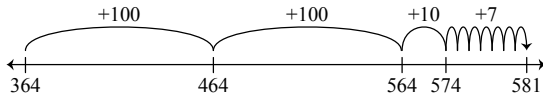
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22. A. 581; Solutions may vary.

Possible solutions:

Mental Math Strategy

$$364 + 200 + 10 + 7 = 581$$



Paper-and-Pencil Method

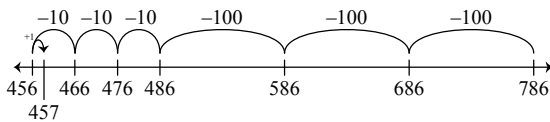
$$\begin{array}{r} 364 \\ + 217 \\ \hline 500 \\ 70 \\ \hline 11 \\ \hline 581 \end{array}$$

B. 457; Solutions may vary.

Possible solutions:

Mental Math Strategy

$$786 - 300 - 30 + 1$$



Paper-and-Pencil Method

$$\begin{array}{l} 786 = 700 + 80 + 6 = 700 + 70 + 16 \\ 329 = 300 + 20 + 9 = 300 + 20 + 9 \\ \hline 400 + 50 + 7 = 457 \end{array}$$

23.

Rule: **Doubling**

| Input | Output |
|-------|--------|
| 1 | 2 |
| 3 | 6 |
| 4 | 8 |
| 6 | 12 |
| 8 | 16 |
| 10 | 20 |

Name _____ Date _____

22. Solve the problems below two different ways: use a mental math strategy and a paper-and-pencil method.

A.
$$\begin{array}{r} 364 \\ + 217 \\ \hline \end{array}$$

Mental Math Strategy Paper-and-Pencil Method

B.
$$\begin{array}{r} 786 \\ - 329 \\ \hline \end{array}$$

Mental Math Strategy Paper-and-Pencil Method

23. Fill in the missing values in the Rule Machine. Write the rule.

| Rule: _____ | |
|-------------|--------|
| Input | Output |
| 1 | 2 |
| 3 | 6 |
| 4 | |
| 6 | 12 |
| | 16 |
| 10 | |

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- 24.** Model the number on the number line. Write a number sentence that shows how the base-ten hopper hopped on the number line.

A base-ten hopper made 2 hops of 100, 3 hops of 10, and 4 hops of 1. What number did it land on?



Number sentence _____

- 25.** Place the numbers in order from smallest to largest.

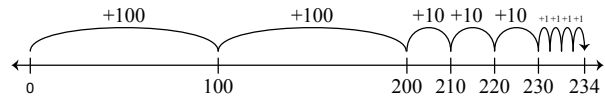
A. 922, 1045, 958

B. 348, 299, 801

C. 1004, 1010, 987

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24. 234



Number sentence: $100 + 100 + 10 + 10 + 10 + 1 + 1 + 1 + 1 = 234$

25. A. 922, 958, 1045

B. 299, 348, 801

C. 987, 1004, 1010