Cumulative Benchmark Assessment 1
Study Guide

Name Answer Key Homeroom _____

Directions: Model each problem using a tape diagram. Solve using numbers and words. You MUST show your work!

1. At a parade, 97,853 people sat in bleachers and 388,547 people stood along the street. How many fewer people were in the bleachers than standing on the street?

	18	7	14	14	
2	8	8,	8	4	7
-	9	7,	8	5	3
2	9	0,	6	9	4

tape diagrams may vary.

2. A pair of hippos weighed 5,201 kg together. The female weighed 2,038 kg. How much does the male weigh?

	1		9	11
	5,	2	0	1
-	2,	0	3	8
	3,	1	6	3

tape diagrams may vary

Directions: Estimate, then solve the following problem modeling with a tape diagram.

3. A mixture of 2 chemicals measures 1,034 ml. It contains some of Chemical A and 755 ml of Chemical B. About how much of Chemical A was in the mixture?

mixture = 1,034 ≈ 1,000
Chemical A = ?
Chemical B = 755 ≈ 800

	9	10		
	1,	0	0	0
-		8	0	0
		2	0	0

4. Gavin has 1,094 toy building blocks. Avery has only 816 toy building blocks. How many more building blocks does Gavin have?

	10	8	14
1,	0	9	4
	8	1	6
	2	7	8

tape diagrams may vary

Directions: Solve each problem

5. Tom wrote the number 45,378. Bill wrote the number 36,721

How many times greater is the 7 in Bill's number than the 7 in Tom's number? 10 x greater

Use pictures, numbers, or words to demonstrate your reasoning.

45,378

36,721

10x

6. Sarah wrote the number 13,285.

Caryn wrote a five-digit number that has only one 3 in it. The 3 in Caryn's number is worth 10 times as much as the 3 in Sarah's number. Write three different numbers that Caryn could have written.

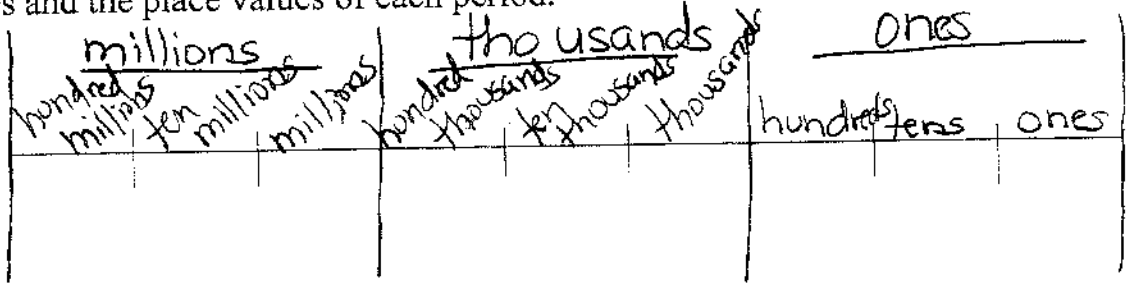
a). _____ b). _____

c). _____

Circle one of the numbers you wrote above. Use pictures, numbers, or words to show how you know that the 3 in that number is worth ten times as much as the 3 in Sarah's number.

Directions: Label the place value chart below. You must include period names and the place values of each period.

8.



Directions: Find the value of the underlined digit.

9. 703,890

700,000

10. 63,540

40

11. 345,890

5,000

Directions: Write each number using two other forms.

12. five hundred eight thousand

508,000

500,000 + 8,000

13. 400,000 + 60,000 + 5,000 + 100

465,100

465,100

four hundred sixty-five thousand one hundred

14. 570,090

500,000 + 70,000 + 90

five hundred seventy thousand, ninety

Directions: Write <, >, or =.

15. 631,328 < 640,009

16. 708,561 > 629,672

17. 56,987 > 56,789

18. 239,097 > 23,997

631,328
640,009

708,561
629,672

56,987
56,789

239,097
23,997

Big to small

20,650
① 21,150
② 20,890

Directions: Order from greatest to least.

19. 20,650; 21,150; 20,890

21,150; 20,890; 20,650

small big

Directions: Order from least to greatest.

② 41,090
41,190
① 40,009

20. 41,090; 41,190; 40,009

40,009; 41,090; 41,190

Directions: Round to the place value of the underlined digit.

21. 934,567 935,000

22. 641,267 640,000

23. 234,792 200,000

Directions: Solve the following problems.

24. A toy store is ordering 3,000 remote control cars. The store can order the cars in sets of 10. How many sets of 10 does the store need to order?

$10 \times n = 3,000$ or $3,000 \div 10 = n$

$n = 300$ $n = 300$

25. Tom sold 53 boxes of oranges during a citrus sale. There were 10 oranges in each box. How many oranges did he sell in all?

$53 \times 10 = n$

$n = 530$

26. A store sold a total of 15,00 boxes of buttons last month. If the store sold 150,000 buttons, how many buttons were in each box?

$1,500 \times n = 150,000$

$n = 100$

Directions: Estimate the sum. Show your work!

27. 72,931 estimate 90,000
+18,563

72,931 ≈ 70,000
18,563 ≈ +20,000
90,000

28. 432,068 estimate 600,000
+239,576

432,068 ≈ 400,000
239,576 ≈ +200,000
600,000

Directions: Estimate. Then find the difference.

29. 942,385 estimate _____
-461,803
82

942,385 ≈ 900,000
461,803 ≈ -500,000
400,000

30. 300,980 estimate 100,000
- 159,000
141,980

300,980 ≈ 300,000
159,000 ≈ -200,000
100,000

Directions: Read each problem and solve. You must show your work!

31. Hot air balloons are able to fly at very high altitudes. A world record height of 64,997 feet was set in 1988. In 2005, a new record of 68,986 feet was set. How many feet higher was the 2005 record than the 1988 record?

68,986
- 64,997
3,989

32. There were 665 hot air balloon pilots at a hot air balloon race. There were 1,550 more ground crew members than there were pilots. How many ground crew members were there?

1,550
+ 665
2,215

2,215 ground crew members

Directions: Regroup. Write the missing numbers.

33. 9 tens 10 ones = 1 hundred $9 \times 10 = 90$ $10 \times 1 = 10$ $90 + 10 = 100$

34. 60 hundreds = 6 thousands $60 \times 100 = 6{,}000$

35. 2,765 = 2 thousand, 7 hundred, 6 tens, 5 ones

2,765 = 27 hundred, 6 tens, 5 ones

2,765 = 276 tens, 5 ones

2,765 = 2,765 ones

Directions: Write a comparison sentence.

36. $18 = 9 \times 2$ 18 is 9 times as any as 2.

37. $8 \times 4 = 32$ 8 times as many as 4 is 32

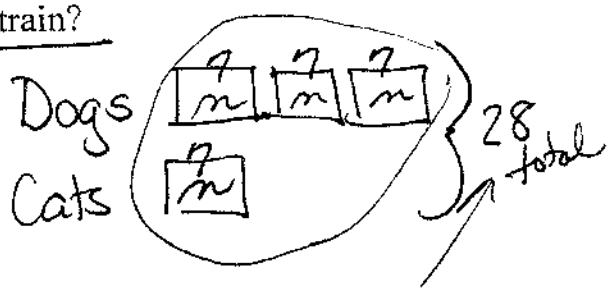
Directions: Write an equation.

38. 3 times as many as 7 is 21. $3 \times 7 = 21$

39. 40 is 5 times as many as 8. $40 = 5 \times 8$

Directions: Draw a model. Write an equation and solve.

40. Last month Kim trained 3 times as many dogs as cats. If the total number of cats and dogs she trained last month is 28, how many cats did Kim train?



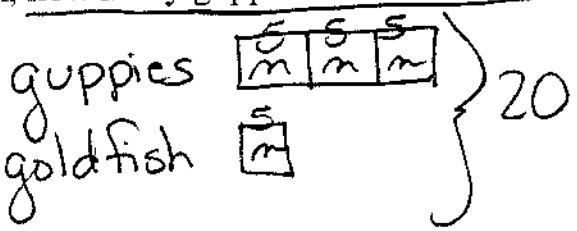
total boxes → $4 \times n = 28$

$n = 7$

She trained 7 cats!

The question did not ask about dogs.

41. Ben has 3 times as many guppies as goldfish. If he has a total of 20 fish, how many guppies does he have?



$4 \times n = 20$

$n = 5$

How many guppies $3 \times 5 = 15$

Directions: Tell whether the exact answer is reasonable. How do you know?

42. A walking path for horses is 94 feet long. Carlos says that if a horse walks the length of the path 3 times, it will have walked 500 feet.

94 is between 90 and 100

90 × 3 = 180

100 × 3 = 300

If the answer was reasonable the exact answer would be between 180 and 300. So the answer is NOT reasonable.

43. Mr. Brown sells horse supplies. A pair of riding gloves sells for $16. He says he will make $144 if he sells 9 pairs.

$16 is between $10 and $20.

10 × 9 = 90

20 × 9 = 180

The exact answer is reasonable because $144 falls between $90 and $180.

Directions: Multiply using the Area Model.

44. 135 × 6

100	30	5	
100×6 = 600	30×6 = 180	5×6 = 30	6

600 + 180 + 30 = 810

45. 21 × 4

20	1	
20×4 = 80	1×4 = 4	4

80 + 4 = 84

Directions: Solve the problem. Show your work!

46. The skating rink rents 200 pairs of skates in a month. How many pairs of skates does the rink rent in 4 months?

200 × 4 = 800