

Name _____ Date _____ (25A)

The grocery store manager is deciding where to put boxes of cereal that just arrived in 3 trucks. The chart shows the number of boxes of cereal in each truck.

Truck A	Truck B	Truck C
66	75	60

There are 4 empty shelves in the back room, and each shelf holds only 55 boxes of cereal. The store manager needs to decide how many boxes of cereal should go on each shelf so the boxes will all fit.

In the space below, show how many boxes should be put on each shelf so the boxes can all fit. Explain or show how you got your answer.

A POSSIBLE SOLUTION

*1ST find out how many boxes the shelves will hold
55 boxes on each of 4 shelves
 $55 + 55 = 110$; $110 + 110 = 220$ (or add 55 four times)*

*2nd Empty the trucks or Put boxes on the shelves
Truck A: 55 boxes on a shelf ($66 - 55 = 11$ boxes left)
Truck B: 55 boxes on a shelf ($75 - 55 = 20$ boxes left)
Truck C: 55 boxes on a shelf ($60 - 55 = 5$ boxes left)
One shelf left and 36 boxes left – Put the 36 boxes on the 4th Shelf*

A POSSIBLE SOLUTION

*1ST find out how many boxes the shelves will hold
55 boxes on each of 4 shelves
 $55 + 55 = 110$; $110 + 110 = 220$ (or add 55 four times)*

*2nd find out how many boxes are in the truck: $66 + 75 + 60 = 201$
Estimate that there are about 50 boxes per shelf
Put 50 boxes on 3 shelves and 51 boxes on the 4th shelf ($50 + 50 + 50 + 51 = 201$ boxes)*

(7B)

4. Solve this problem.

$$26 + 45 =$$

71 ***

61

21

11

5. Solve this problem.

$$\begin{array}{r} 38 \\ +47 \\ \hline \end{array}$$

11

75

81

85 ***

6. Solve this problem.

$$29 + 74 =$$

65

95

103 ***

113

(7B)

7. Solve this problem.

$$88 + 8 =$$

89

96 ***

98

99

8. Solve this problem.

$$95 + 7 =$$

102 ***

112

155

165

9. Solve this problem.

$$\begin{array}{r} 34 \\ +9 \\ \hline \end{array}$$

33

34

43 ***

44

(7A)

4. Solve this problem.

$$21 + 45 =$$

24

66 ***

75

93

5. Solve this problem.

$$\begin{array}{r} 63 \\ +24 \\ \hline \end{array}$$

41

71

87 ***

97

6. Solve this problem.

$$38 + 20 =$$

18

40

50

58 ***

(7A)

7. Solve this problem.

$$33 + 5 =$$

28

32

38 ***

83

8. Solve this problem.

$$92 + 6 =$$

84

94

98 ***

108

9. Solve this problem.

$$\begin{array}{r} 21 \\ +41 \\ \hline \end{array}$$

62 ***

51

40

20

Grade 4 (3rd Generation) Scoring Rubric: Writing Subtraction Story Problems

2 Points: The student writes a story problem that matches a given subtraction number sentence.

1 Point: The student writes a somewhat flawed response which:

- uses addition rather than subtraction, or
- shows an error in transcribing the specified numbers, or
- does not complete the story problem, or
- goes beyond the scope of a given number sentence or uses the numbers in a way that does not make numerical sense, or
- fails to ask an appropriate question.

0 Points: The student does not write a story problem that matches a given subtraction number sentence or uses multiplication or division rather than subtraction.

3. Write a story problem that can be solved using the number sentence $9 - 7 = \square$.

TAKE-AWAY MODEL OF SUBTRACTION

Gary had 7 extra large, scrumptious, totally unhealthy chocolate Hershey bars. Being an extremely kind, generous, and generally wonderful human being, he gave 3 of those fantastically delicious bars to Terry, who didn't really like chocolate and would have really preferred a bottle of Dom Perignon but wasn't going to make a fuss what with Gary's being her boss and all. How many chocolate bars does Gary still have?

COMPARISON MODEL OF SUBTRACTION

Gary received 3 boxes of Godiva Chocolates from his adoring staff. Terry received 7 boxes of Godiva Chocolates from that same staff of people. How many more boxes of Godiva Chocolates did terrific Terry receive than did Gorgeous Gary?

COMBINED MODEL OF SUBTRACTION

Gary had 7 boxes of Russell Stover Chocolates. He locked up some of the boxes in his wall safe for safe keeping (safe from whom?) and took 3 boxes home. How many boxes did he put in his wall safe? (And what's the combination?)

MISSING ADDEND MODEL OF SUBTRACTION

Terry had 7 magnums of Dom Perignon. Gary, who is pretty sick of chocolate by now, has 2 magnums of Dom. How many bottles would Gary have to buy to have as many magnums as Terry [who doesn't actually like the champagne as much as she likes using her beautiful Waterford crystal champagne glasses] has?

Name _____ Date _____ (5C)

Grade 4 (3rd Generation) Scoring Rubric: Writing Addition Story Problems

2 Points: The student writes a story problem that matches a given addition number sentence.

1 Point: The student writes a somewhat flawed response which:

- uses subtraction rather than addition, or
- shows an error in transcribing the specified numbers, or
- does not complete the story problem, or
- goes beyond the scope of a given number sentence or uses the numbers in a way that does not make numerical sense, or
- fails to ask an appropriate question.

0 Points: The student does not write a story problem that matches a given addition number sentence or uses multiplication or division rather than addition.

1. Write a story problem that can be solved using the number sentence $8 + 6 = \square$.

JOINING MODEL OF ADDITION

Neiman had 8 cats. He loved the mess, the smell in the house, the litter, and the scratched furniture so much that he adopted 6 more cats from the Houston Humane Society. How many cats does Neiman now have?

COMBINED MODEL OF ADDITION

Neiman has 8 diamond necklaces and 6 gold necklaces for his cats to wear while the cat care-giver walks the cats around the neighborhood. How many necklaces does Neiman own for his cats?

2. Write a story problem that can be solved using the number sentence $18 + 4 = \square$.

SCORE OF 2: Sue had 18 peaches. Tammy had 4 peaches. How many peaches did the girls have altogether. (*THE MISSING QUESTION MARK WOULD NOT AFFECT THE SCORE.*)

POSSIBLE SCORES OF 1:

Sue had 18 peaches. She bought 4 more. (*NO QUESTION WAS ASKED.*)

Sue had 18 peaches. She ate 4. How many peaches are left?

(*SUBTRACTION PROBLEM, NOT ADDITION PROBLEM*)

Sue had 17 peaches. Tammy had 4 peaches. How many peaches in all?

(*WRONG NUMBER OR NUMBERS USED – SHOULD BE 18 PEACHES, NOT 17*)

POSSIBLE SCORES OF 0:

I love the numbers 18 and 4 because they are both even.

Tom had 18 boxes. He put 4 pencils in each box. How many pencils does he have? (Multiplication Number Sentence)

If I add 18 and 4, I get 22. (Not a story problem at all).

The following items are intended for practice only of the 4th Generation CMT content and format, not for instruction of concepts. Much teaching must precede the use of these items to ensure children’s success both in mathematics and on the CMT.

Topic 11: Investigating 4-Digit Numbers
Extra Practice: Not Related to Topic 11 (GWM)
December 23, 2006

- 5C: Write addition and subtraction story problems from number sentences.
- 7A: Add and subtract 1- and 2-digit whole numbers without regrouping.
- 7B. Add 1- and 2-digit whole numbers with regrouping.
- 25A: Solve extended numerical and statistical problems.

Name _____ Date _____ (25A)

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In the space below, show how many boxes should be put on each shelf so the boxes can all fit. Explain or show how you got your answer.

(7B)

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$$88 + 8 =$$

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8. Solve this problem.

$$95 + 7 =$$

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- 155
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9. Solve this problem.

$$\begin{array}{r} 34 \\ +9 \\ \hline \end{array}$$

- 33
- 34
- 43
- 44

(7A)

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- 24
- 66
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- 62
- 51
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Name _____ Date _____ (5C)

1. Write a story problem that can be solved using the number sentence $8 + 6 = \square$.

2. Write a story problem that can be solved using the number sentence $18 + 4 = \square$.

3. Write a story problem that can be solved using the number sentence $9 - 7 = \square$.
