

Date _____

Make It Balance

Use a two-pan balance and a set of gram masses. Place the masses that match the first number sentence in one pan. Find a different set of masses that will balance the pans. Write another number sentence to show the masses that you used. Then combine the two number sentences to make one true statement.

Ex. $20 + 10 + 10 + 5 = 45$ $10 + 10 + 10 + 10 + 5 = 45$
First Number Sentence Another Number Sentence

$20 + 10 + 10 + 5 = 45$ $20 + 10 + 10 + 10 + 10 + 5$
Combined Number Sentence

A. $20 + 5 + 4 = 29$ _____
First Number Sentence Another Number Sentence

_____ _____
Combined Number Sentence

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Student Activity Book

Make It Balance (SAB pp. 415–417)
Questions A–I

Answers will vary. Possible responses for Questions A–E are shown.

- A.** $10 + 10 + 5 + 4 = 29$;
 $20 + 5 + 4 = 10 + 10 + 5 + 4$
- B.** $20 + 10 + 4 = 34$;
 $10 + 10 + 10 + 4 = 20 + 10 + 4$
- C.** $20 + 10 + 10 + 7 = 47$;
 $20 + 20 + 7 = 20 + 10 + 10 + 7$
- D.** $10 + 10 + 20 + 20 = 60$;
 $10 + 5 + 5 + 20 + 20 = 10 + 10 + 20 + 20$
- E.** $10 + 10 + 10 + 10 + 2 = 42$;
 $20 + 10 + 5 + 5 + 2 = 10 + 10 + 10 + 10 + 2$

F–I. Answers will vary.

Name _____ Date _____

B. $10 + 10 + 10 + 4 = 34$ _____
First Number Sentence Another Number Sentence

_____ _____
Combined Number Sentence

C. $20 + 20 + 7 = 47$ _____
First Number Sentence Another Number Sentence

_____ _____
Combined Number Sentence

D. $10 + 5 + 5 + 20 + 20 = 60$ _____
First Number Sentence Another Number Sentence

_____ _____
Combined Number Sentence

E. $20 + 10 + 5 + 5 + 2 = 42$ _____
First Number Sentence Another Number Sentence

_____ _____
Combined Number Sentence

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Name _____ Date _____

F. _____ _____
Another Number Sentence First Number Sentence

_____ _____
Combined Number Sentence

G. _____ _____
Another Number Sentence First Number Sentence

_____ _____
Combined Number Sentence

H. _____ _____
Another Number Sentence First Number Sentence

_____ _____
Combined Number Sentence

I. _____ _____
Another Number Sentence First Number Sentence

_____ _____
Combined Number Sentence

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True or False Statements (SAB p. 419)

Questions 1–2

1. A. True
B. False
C. True
D. True
E. False
2. A. 5
B. 20
C. 10

Name _____ Date _____

True or False Statements

1. Is it true or false? Circle true or false for each problem.

A. $20 + 10 + 10 + 2 = 10 + 10 + 10 + 10 + 2$
True False

B. $10 + 10 + 10 + 4 = 10 + 10 + 5 + 4$
True False

C. $20 + 20 + 1 = 10 + 10 + 10 + 10 + 1$
True False

D. $5 + 5 + 5 + 5 + 2 = 10 + 10 + 2$
True False

E. $20 + 10 + 5 + 5 + 3 = 10 + 10 + 10 + 5 + 3$
True False

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

A. $20 + 10 + 10 + 10 + 10 + 3 = 20 + 20 + 10 + \square + 5 + 3$

B. $10 + 10 + 10 + 10 + 2 = 20 + \square + 2$

C. $5 + 5 + 5 + 5 + 5 = 10 + \square + 5$

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Mara's Lunch (SAB pp. 427–428)

Questions 1–7

1. Answers will vary. Possible response: three 20-gram masses and two 5-gram masses.
Number sentence:
 $20 + 20 + 20 + 5 + 5 = 70$ grams
2. Mara's lunch is heavier. Possible response: I added $70 \text{ g} + 90 \text{ g} + 45 \text{ g} = 205 \text{ g}$ for Mara's lunch and $205 \text{ g} > 200 \text{ g}$.
3. A. cookie < sandwich
B. sandwich > small apple
C. small apple > cookie

Name _____ Date _____

1. Mara found the mass of the small apple but had no 10-gram masses. Which gram masses could she have used? Draw or record them in the table.

| 20 g | 10 g | 5 g | 1 g |
|------|------|-----|-----|
| 0 | | | |

Write a number sentence to show which gram masses she used.
70 g _____
small apple Number sentence

2. Johnny's lunch has a mass of 200 grams. Whose lunch is heavier, Mara's or Johnny's? Show or tell how you know.


3. Compare the items in Mara's lunch. Fill in the circle with < or > to make the statement true.

A. cookie sandwich

B. sandwich small apple

C. small apple cookie

> greater than
< less than
= equal to



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Name _____ Date _____

4. Circle True or False for each statement.

A. $20 + 20 + 2 = 20 + 10 + 5 + 2$ True False

B. $20 + 4 = 10 + 10 + 4$ True False

C. $10 + 10 + 5 + 5 = 20 + 10 + 5$ True False

5. Mara ate some of her sandwich. When she placed the leftover part of her sandwich on the two-pan balance, it had a mass of 40 grams. How much did she eat? Show or tell how you know.

Number sentence _____

6. How many more grams is the small apple than the cookie? Show or tell how you know.

Number sentence _____

7. Miguel's cookie is 17 grams more than Mara's cookie. What is the mass of Miguel's cookie? Show or tell how you know.

Number sentence _____

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4. A. False
B. True
C. False
5. 50 grams; Possible strategy: I used the number line. I started at 90 and counted back 4 tens. I landed at 50.
Number sentence $70 \text{ g} - 40 \text{ g} = 30 \text{ g}$
6. 25 grams; Possible strategy: I started at 45 and counted up by fives until I reached 70: 5, 10, 15, 20, 25.
Number sentence $45 \text{ g} > \boxed{25 \text{ g}} = 70 \text{ g}$
7. 62 grams; Possible strategy: I used the compact method.
- $$\begin{array}{r} 45 \text{ grams} \\ + 17 \text{ grams} \\ \hline 62 \text{ grams} \end{array}$$
- Number sentence $45 \text{ g} + 17 \text{ g} = 62 \text{ g}$

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Name _____ Date _____

| Expectation | Check In | Comments |
|---|----------|----------|
| Compose and decompose numbers using ones, fives, tens, and hundreds. [Q# 1-4] | E1 | |
| Use words and symbols (e.g., $<$, $>$, $=$) to show comparisons of quantities. [Q# 3] | E2 | |
| Recognize that different partitions of a number have the same total (e.g., $30 = 4 + 40 = 14$). [Q# 4] | E4 | |
| Apply the properties of addition (e.g. commutative, associative) to number sentences that represent mass. [Q# 1, 5-7] | E5 | |
| Solve addition problems (e.g., part-whole, join, compare) involving mass. [Q# 2, 5-7] | E6 | |

| Yes ... | Yes, but ... | No, but ... | No ... |
|---|--------------|-------------|--------|
| MP1E. Show my work. I show or tell how I arrived at my answer so someone else can understand my thinking. [Q# 2, 5-7] | | | |
| MP6E. Use labels. I use labels on my numbers. | | | |

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Teacher Guide

Add the Masses (TG pp. 1–2)

Homework

Questions 1–5

1. paperback library book: 88 grams
5 pencils: 25 grams
calculator: 107 grams
coin purse with change: 76 grams
comb: 13 grams
2. Strategies will vary. Possible strategy:
 $50 + 50 = 100$; $100 + 7 = 107$ grams
3. $88 \text{ g} + 13 \text{ g} = 101$ grams. Possible strategy:
 $80 + 10 = 90$; $8 + 3 = 11$; $90 + 11 = 101 \text{ g}$
4. A. 75
B. 132
C. 129
5. A. $20 + 10 + 1 = \boxed{10} + 10 + 1$
B. $20 + 5 + 5 + 5 + 2 = 20 + \boxed{10} + 5 + 2$
C. $10 + 10 + 10 + 10 + 4 = \boxed{20} + 10 + 10 + 4$

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Name _____ Date _____

Add the Masses

Homework

Dear Family Member:

In class, we have been solving addition problems involving mass. For example, two 20-gram masses and four 5-gram masses is equal to $20 + 20 + 5 + 5 + 5 + 5 = 60$ grams. Ask your child to show or tell how to find the total mass for an object.

Thank you.

1. Carla measured the mass of some things she carries in her backpack. She used a two-pan balance and standard masses. Find the total mass for each object.

| Object | Masses Used | Total Mass |
|------------------------|--|------------|
| paperback library book | four 20-gram masses one 5-gram mass three 1-gram masses | |
| 5 pencils | one 10-gram mass three 5-gram masses | |
| calculator | two 50-gram masses seven 1-gram masses | |
| coin purse with change | three 20-gram masses one 10-gram mass one 5-gram mass one 1-gram mass | |
| comb | one 10-gram mass three 1-gram masses | |

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Name _____ Date _____

2. Show or tell how you found the total mass for Carla's calculator.
3. On Tuesday, Carla's backpack had only the comb and paperback library book. How much mass was Carla carrying in her backpack on Tuesday? Show how you know.
4. Solve these problems using a paper-and-pencil method.

| | | |
|---|---|---|
| A. $\begin{array}{r} 47 \\ +28 \\ \hline \end{array}$ | B. $\begin{array}{r} 96 \\ +36 \\ \hline \end{array}$ | C. $\begin{array}{r} 77 \\ +52 \\ \hline \end{array}$ |
|---|---|---|
5. Write a number in the box to make the number sentence true.

| |
|---|
| A. $20 + 10 + 1 = \boxed{} + 10 + 10 + 1$ |
| B. $20 + 5 + 5 + 5 + 2 = 20 + \boxed{} + 5 + 2$ |
| C. $10 + 10 + 10 + 10 + 4 = \boxed{} + 10 + 10 + 4$ |

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