



# Year 2 Mathematics

## Mass: Heavier & Lighter - Worksheet 33

### Comparing Mass

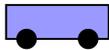
Name: \_\_\_\_\_ Date: \_\_\_\_\_

#### Section 1: Circle the Heavy or Light One (Fluency)

Look at each pair. Circle the object that is heavier or lighter.

Question 1: Circle the object that is **heavier**:

A) Car



B) Feather



Answer: \_\_\_\_\_

Question 2: Circle the object that is **lighter**:

A) Elephant



B) Mouse



Answer: \_\_\_\_\_

Question 3: Circle the **heavier** object:

A) Book

B) Leaf



Answer: \_\_\_\_\_

**Question 4:** Circle the **lighter** object:

- A) Brick                      B) Balloon

Answer: \_\_\_\_\_

**Question 5:** Which is heavier?

- A) Apple                      B) Watermelon

Answer: \_\_\_\_\_

**Question 6:** Which is lighter?

- A) Pencil                      B) Table

Answer: \_\_\_\_\_

**Mass Master!**



*Why did the elephant win at the seesaw? Because it had MORE mass appeal!*



## Section 2: Reading Pan Balances (Reasoning)

**Look at the scales. Remember: The heavier side goes DOWN!**

**Question 7:** Look at the scale. The Apple is lower than the Grape. Which is heavier?

[shift=(3,2)] [scalegray] (-0.1,-1) rectangle (0.1,0); [scalegray] (-0.5,-1.2) rectangle (0.5,-1); [scalegray!80] (0,0) – (-0.3,-0.3) – (0.3,-0.3) – cycle; [very thick, brown!70] (-2.5,-0.8) – (2.5,0.5); [thick, fill=scaleblue!30] (-2.5,-0.8) – (-3,-1.2) – (-2,-1.2) – cycle; [above] at (-2.5,-0.5) Apple; [thick, fill=scaleblue!30] (2.5,0.5) – (3,0.1) – (2,0.1) – cycle; [above] at (2.5,0.8) Grape;

**Answer:** The \_\_\_\_\_ is heavier.

**Question 8:** Look at the scale. Which side is lighter?

[shift=(3,2)] [scalegray] (-0.1,-1) rectangle (0.1,0); [scalegray] (-0.5,-1.2) rectangle (0.5,-1); [scalegray!80] (0,0) – (-0.3,-0.3) – (0.3,-0.3) – cycle; [very thick, brown!70] (-2.5,0.5) – (2.5,-0.8); [thick, fill=scaleblue!30] (-2.5,0.5) – (-3,0.1) – (-2,0.1) – cycle; [above] at (-2.5,0.8) Balloon; [thick, fill=scaleblue!30] (2.5,-0.8) – (3,-1.2) – (2,-1.2) – cycle; [above] at (2.5,-0.5) Rock;

**Answer:** The \_\_\_\_\_ is lighter.

**Question 9:** The scale is balanced (level). What does this mean?

[shift=(3,2)] [scalegray] (-0.1,-1) rectangle (0.1,0); [scalegray] (-0.5,-1.2) rectangle (0.5,-1); [scalegray!80] (0,0) – (-0.3,-0.3) – (0.3,-0.3) – cycle; [very thick, brown!70] (-2.5,0) – (2.5,0); [thick, fill=scaleblue!30] (-2.5,0) – (-3,-0.4) – (-2,-0.4) – cycle; [above] at (-2.5,0.3) 5 blocks; [thick, fill=scaleblue!30] (2.5,0) – (3,-0.4) – (2,-0.4) – cycle; [above] at (2.5,0.3) 5 blocks;



**Answer:** Both sides have the \_\_\_\_\_ mass.

**Question 10:** Draw a ball on the lighter side of this scale:



**Question 11:** True or False: If one side of a scale is UP, that side is heavier.

**Circle your answer:**                      TRUE                      FALSE

**Question 12:** Look at this scale. Which is heavier: the book or the toy?

[shift=(3,2)] [scalegray] (-0.1,-1) rectangle (0.1,0); [scalegray] (-0.5,-1.2) rectangle (0.5,-1); [scalegray!80] (0,0) – (-0.3,-0.3) – (0.3,-0.3) – cycle; [very thick, brown!70] (-2.5,-0.8) – (2.5,0.5); [thick, fill=scaleblue!30] (-2.5,-0.8) – (-3,-1.2) – (-2,-1.2) – cycle; [above] at (-2.5,-0.5) Book; [thick, fill=scaleblue!30] (2.5,0.5) – (3,0.1) – (2,0.1) – cycle; [above] at (2.5,0.8) Toy;

**Answer:** The \_\_\_\_\_ is heavier.



### Balanced Scale Champion!

*What did one scale say to the other? "Let's keep things BALANCED around here!"*



## Section 3: Ordering Mass Challenge

Think about different objects and order them by mass.

**Question 13:** Order these from lightest to heaviest:  
**Feather, Brick, Cat**

**Answer:** \_\_\_\_\_

**Question 14:** Order these from heaviest to lightest:  
**Pencil, Car, Book**

**Answer:** \_\_\_\_\_

**Question 15:** True or False: A big pillow is always heavier than a small rock.  
**Circle your answer:**      TRUE      FALSE

**Question 16:** Which of these is the lightest?  
**A) Elephant      B) Dog      C) Butterfly**

**Answer:** \_\_\_\_\_

**Question 17:** Order from lightest to heaviest:  
**Bus, Bicycle, Scooter**

**Answer:** \_\_\_\_\_

**Question 18:** True or False: Something that is big is always heavy.



Circle your answer:

TRUE

FALSE



### Heavyweight Hero Mouse!

*Why did the mouse go to the gym? To work on its MASS-cles!*





# Answer Key

## Worksheet 33: Heavier & Lighter

### Section 1: Circle the Heavy or Light One

1. **A) Car** (a car is heavier than a feather)
2. **B) Mouse** (a mouse is lighter than an elephant)
3. **A) Book** (a book is heavier than a leaf)
4. **B) Balloon** (a balloon is lighter than a brick)
5. **B) Watermelon** (a watermelon is heavier than an apple)
6. **A) Pencil** (a pencil is lighter than a table)

### Section 2: Reading Pan Balances

7. **The Apple** is heavier (the lower side is heavier)
8. **The Balloon** is lighter (the higher side is lighter)
9. Both sides have the **same** mass (balanced means equal mass)
10. Draw a ball on the **left pan** (the higher/lighter side)
11. **FALSE** (if one side is UP, that side is lighter, not heavier)
12. **The Book** is heavier (the book side is lower)

### Section 3: Ordering Mass Challenge

13. **Feather, Cat, Brick** (from lightest to heaviest)
14. **Car, Book, Pencil** (from heaviest to lightest)



15. **FALSE** (size doesn't always determine mass; a small rock can be heavier than a big pillow)
16. **C) Butterfly** (the lightest of the three)
17. **Scooter, Bicycle, Bus** (from lightest to heaviest)
18. **FALSE** (big things can be light, like a balloon or pillow)





# Year 2 Mathematics

## Mass: Measuring with Units - Worksheet 34

Using Blocks to Measure Mass

Name: \_\_\_\_\_ Date: \_\_\_\_\_

### Section 1: Counting Blocks (Fluency)

Look at the balanced scales. Count the blocks to find the mass.

**Question 1:** The toy car balances with 5 blocks. How much does the toy car weigh?

Toy Car



**Answer:** \_\_\_\_\_ blocks

**Question 2:** The book balances with 10 marbles. How much does the book weigh?

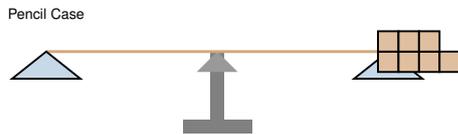
**Answer:** \_\_\_\_\_ marbles

**Question 3:** The apple weighs 3 blocks. Draw or write:

**Answer:** The apple weighs \_\_\_\_\_ blocks.



**Question 4:** Look at the scale. How many blocks does the pencil case weigh?



**Answer:** \_\_\_\_\_ blocks

**Question 5:** A lunchbox weighs 8 blocks. A pencil weighs 2 blocks. Which is heavier?

**Answer:** The \_\_\_\_\_ is heavier.

**Question 6:** Which weighs more: 6 blocks or 4 blocks?

**Answer:** \_\_\_\_\_ blocks weighs more.

### Block Counting Champion!



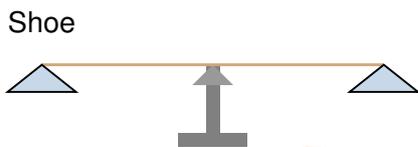
*Why did the blocks love maths? Because they could COUNT on being MEASURED!*



## Section 2: Drawing Balance (Reasoning)

**Make the scales balance by drawing the correct number of blocks.**

**Question 7:** The shoe weighs 4 blocks. Draw 4 blocks on the right pan to make it balance:



**Question 8:** If one apple weighs 3 blocks, how many blocks do 2 apples weigh?

**Answer:** \_\_\_\_\_ blocks

**Question 9:** A ball weighs 5 blocks. A bat weighs 5 blocks. If I put them both on one side of a scale, how many blocks would I need on the other side to balance?

**Answer:** \_\_\_\_\_ blocks

**Question 10:** The eraser weighs 2 blocks. Draw the blocks needed:



**Question 11:** If 3 pencils each weigh 2 blocks, what is the total weight?



**Answer:** \_\_\_\_\_ blocks

**Question 12:** True or False: If a book weighs 8 blocks and a toy weighs 8 blocks, they balance on a scale.

**Circle your answer:**                    TRUE                    FALSE

### Balance Drawing Master!



*Why did the artist love scales? Because they were always DRAWING balanced pictures!*





## Section 3: Word Problems Challenge

Solve these real-life mass problems.

**Question 13:** A pencil weighs 2 blocks. A stapler weighs 10 blocks. How much heavier is the stapler than the pencil?

**Answer:** \_\_\_\_\_ blocks heavier

**Question 14:** I have a bag of 6 apples. I eat 2 apples. Is the bag lighter or heavier now?

**Answer:** The bag is \_\_\_\_\_ now.

**Question 15:** My toy box weighs 20 blocks. I add 5 more toys that weigh 10 blocks altogether. How much does the box weigh now?

**Answer:** \_\_\_\_\_ blocks

**Question 16:** A cat weighs 12 blocks. A kitten weighs 4 blocks. What is the difference in their weights?

**Answer:** \_\_\_\_\_ blocks

**Question 17:** I have two books. One weighs 7 blocks and the other weighs 9 blocks. What is their total weight?

**Answer:** \_\_\_\_\_ blocks



**Question 18:** A feather weighs 1 block. A rock weighs 15 blocks. How many times heavier is the rock than the feather?

**Answer:** \_\_\_\_\_ times heavier

**Question 19:** If I take 3 blocks away from something that weighs 11 blocks, how much does it weigh now?

**Answer:** \_\_\_\_\_ blocks

**Question 20:** True or False: If you add more things to a bag, it becomes heavier.

**Circle your answer:**

TRUE

FALSE



### Problem Solving Champion!

*What is a whale's favorite game? SQUASH - because it's so HEAVY!*



# Answer Key

## Worksheet 34: Measuring with Units

### Section 1: Counting Blocks

1. **5 blocks** (the toy car balances with 5 blocks)
2. **10 marbles** (the book balances with 10 marbles)
3. The apple weighs **3 blocks**
4. **7 blocks** (count the blocks: 4 on bottom row + 3 on top row)
5. **The lunchbox** is heavier (8 blocks is more than 2 blocks)
6. **6 blocks** weighs more (6 is greater than 4)

### Section 2: Drawing Balance

7. Draw **4 blocks** on the right pan
8. **6 blocks** (1 apple = 3 blocks, so 2 apples =

$$3 + 3 = 6$$

blocks)

9. **10 blocks** (

$$5 + 5 = 10$$

blocks needed to balance)

10. Draw **2 blocks** (the eraser weighs 2 blocks)
11. **6 blocks** (3 pencils  $\times$  2 blocks each =

$$3 \times 2 = 6$$

blocks)



12. **TRUE** (equal weights balance each other)

### Section 3: Word Problems Challenge

13. **8 blocks heavier** (

$$10 - 2 = 8$$

blocks)

14. The bag is **lighter** now (removed apples means less mass)

15. **30 blocks** (

$$20 + 10 = 30$$

blocks)

16. **8 blocks** (

$$12 - 4 = 8$$

blocks difference)

17. **16 blocks** (

$$7 + 9 = 16$$

blocks total)

18. **15 times heavier** (

$$15 \div 1 = 15$$

times)

19. **8 blocks** (

$$11 - 3 = 8$$

blocks)

20. **TRUE** (adding more things increases the mass/weight)



## Outstanding Work, Mass Measurement Experts!

*You understand heavier, lighter, and measuring with blocks!*

