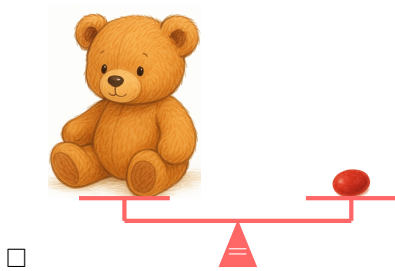
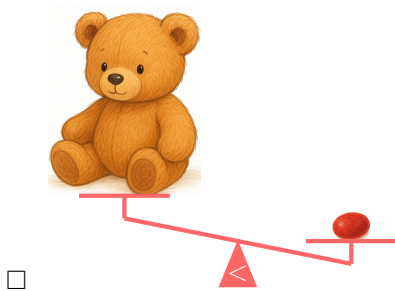
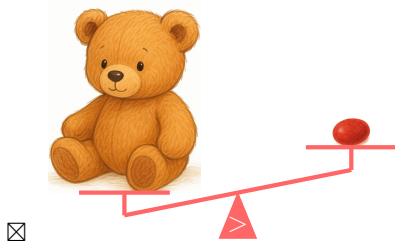


# WEIGHT

## A WHAT IS A WEIGHT?

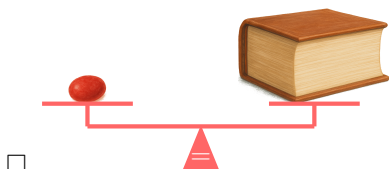
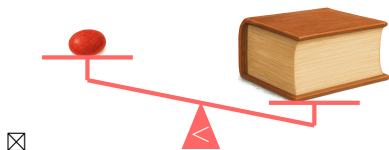
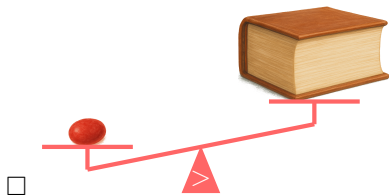
### A.1 COMPARING WEIGHTS OF OBJECTS

**MCQ 1:** Compare the weights of a candy and a teddy bear. Choose the correct picture



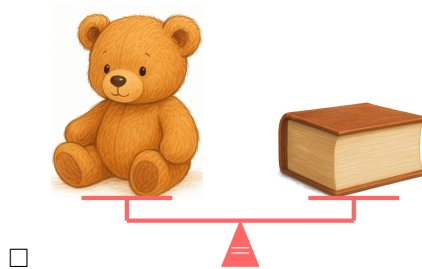
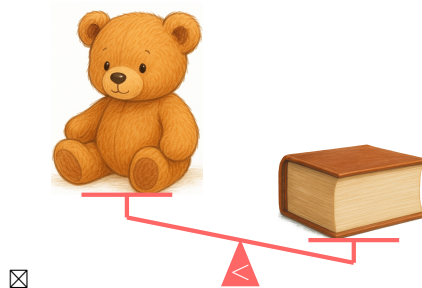
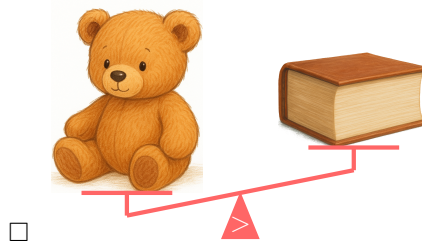
*Answer:* The teddy bear is much heavier than the candy. On a balance scale, the teddy bear's side will go down, and the candy's side will go up. So, the correct picture is the one where the teddy bear's side is lower, showing that the candy is lighter than the teddy bear.

**MCQ 2:** Compare the weights of a book and a candy. Choose the correct picture



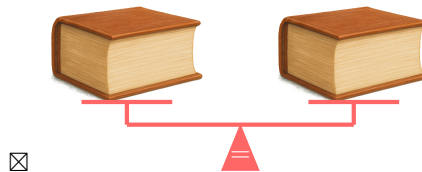
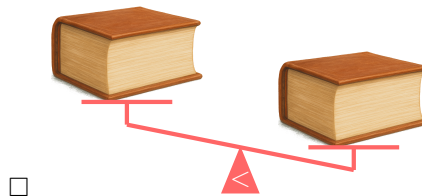
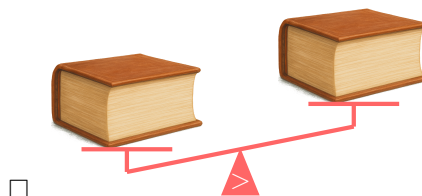
*Answer:* The book is much heavier than the candy. On a balance scale, the book's side will go down, and the candy's side will go up. So, the correct picture is the one where the book's side is lower, showing that the candy is lighter than the book.

**MCQ 3:** Compare the weights of a teddy bear and a book. Choose the correct picture



*Answer:* The book is heavier than the teddy bear.

**MCQ 4:** Compare the weights of a book and another book. Choose the correct picture



*Answer:* The two books are the same, so they weigh the same. On a balance scale, both sides will stay level because neither book is heavier than the other.

## B WEIGHT UNITS

### B.1 CHOOSING THE UNIT OF WEIGHT

**MCQ 5:** Which unit will be used to measure the weight of a 6-year-old boy?



**Choose 1 answer:**

- ☐ Grams  
☒ Kilograms

*Answer:* Kilograms will be used to measure the weight of a 6-year-old boy. A 6-year-old boy weighs about 20 kg.

**MCQ 6:** Which unit will be used to measure the weight of keys?



**Choose 1 answer:**

- ☒ Grams  
☐ Kilograms

*Answer:* Grams will be used to measure the weight of keys. A set of keys weighs about 50 g.

**MCQ 7:** Which unit will be used to measure the weight of a carrot?



**Choose 1 answer:**

- ☒ Grams  
☐ Kilograms

*Answer:* Grams will be used to measure the weight of a carrot. A carrot weighs about 100 g.

**MCQ 8:** Which unit will be used to measure the weight of a washing machine?



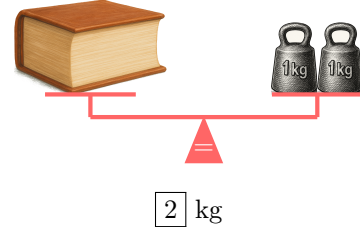
**Choose 1 answer:**

- ☐ Grams  
☒ Kilograms

*Answer:* Kilograms will be used to measure the weight of a washing machine. A washing machine weighs about 60 kg.

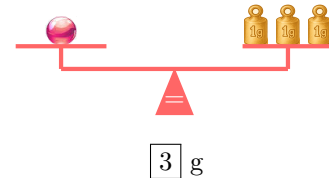
### B.2 MEASURING THE WEIGHT OF OBJECTS

**Ex 9:** What is the weight of the book?



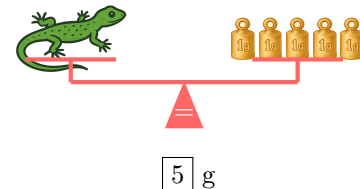
*Answer:* The book weighs 2 kg. The balance scale shows the book on one side and two 1 kg weights on the other side. Since the scale is level, the book's weight is equal to the two weights:  $1\text{ kg} + 1\text{ kg} = 2\text{ kg}$ .

**Ex 10:** What is the weight of the marble?



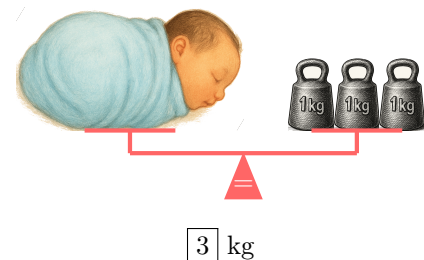
*Answer:* The marble weighs 3 g. The balance scale shows the marble on one side and three 1 g weights on the other side. Since the scale is level, the marble's weight is equal to the three weights:  $1\text{ g} + 1\text{ g} + 1\text{ g} = 3\text{ g}$ .

**Ex 11:** What is the weight of the lizard?



*Answer:* The lizard weighs 5 g. The balance scale shows the lizard on one side and five 1 g weights on the other side. Since the scale is level, the lizard's weight is equal to the five weights:  $1\text{ g} + 1\text{ g} + 1\text{ g} + 1\text{ g} + 1\text{ g} = 5\text{ g}$ .

**Ex 12:** What is the weight of the baby?



*Answer:* The baby weighs 3 kg. The balance scale shows the baby on one side and three 1 kg weights on the other side. Since the scale is level, the baby's weight is equal to the three weights:  $1\text{ kg} + 1\text{ kg} + 1\text{ kg} = 3\text{ kg}$ .

### B.3 MEASURING THE WEIGHT USING A DIGITAL BALANCE

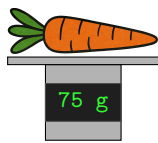
**Ex 13:** What is the weight of the teddy bear?



200 g

*Answer:* The teddy bear weighs 200 g.

**Ex 14:** What is the weight of the carrot?



75 g

*Answer:* The carrot weighs 75 g.

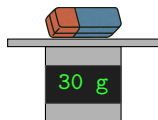
**Ex 15:** What is the weight of a full can of 33 cL?



350 g

*Answer:* A full can of 33 cL weighs 350 g.

**Ex 16:** What is the weight of the eraser?

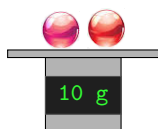


30 g

*Answer:* The eraser weighs 30 g.

### B.4 FINDING THE WEIGHT OF MULTIPLE ITEMS

**Ex 17:**



- What is the weight of 2 identical marbles?

10 g

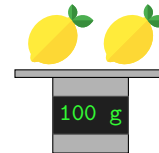
- What is the weight of 1 marble?

5 g

*Answer:*

- The 2 marbles weigh 10 g.
- To find the weight of 1 marble, divide the weight of 2 marbles by 2:  $10 \div 2 = 5$ , so 1 marble weighs 5 g.

**Ex 18:**



- What is the weight of 2 lemons?

100 g

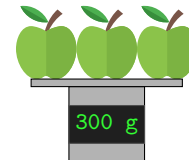
- What is the weight of 1 lemon?

50 g

*Answer:*

- The 2 lemons weigh 100 g.
- To find the weight of 1 lemon, divide the weight of 2 lemons by 2:  $100 \div 2 = 50$ , so 1 lemon weighs 50 g.

**Ex 19:**



- What is the weight of 3 apples?

300 g

- What is the weight of 1 apple?

100 g

*Answer:*

- The 3 apples weigh 300 g.
- To find the weight of 1 apple, divide the weight of 3 apples by 3:  $300 \div 3 = 100$ , so 1 apple weighs 100 g.

**Ex 20:**



- What is the weight of 3 candies?

$$\boxed{12} \text{ g}$$


- What is the weight of 1 candy?

$$\boxed{4} \text{ g}$$

Answer:

- The 3 candies weigh 12 g.
- To find the weight of 1 candy, divide the weight of 3 candies by 3:  $12 \div 3 = 4$ , so 1 candy weighs 4 g.

## B.5 CALCULATING PRICES OF FRUITS


**Ex 21:** The price per kg of apples  is 2 dollars. I buy 3 kg. What is the price?

$$\boxed{6} \text{ dollars}$$

Answer: To find the total price, multiply the price per kg of apples by the number of kilos:

$$\begin{aligned} \text{Total price} &= 2 \text{ dollars per kg} \times 3 \text{ kg} \\ &= 6 \text{ dollars} \end{aligned}$$

So, the price for 3 kilos of apples is 6 dollars.


**Ex 22:** The price per kg of lemons  is 3 dollars. I buy 4 kilos. What is the price?

$$\boxed{12} \text{ dollars}$$

Answer: To find the total price, multiply the price per kg of lemons by the number of kilos:

$$\begin{aligned} \text{Total price} &= 3 \text{ dollars per kg} \times 4 \text{ kg} \\ &= 12 \text{ dollars} \end{aligned}$$

So, the price for 4 kilos of lemons is 12 dollars.

**Ex 23:** The price per kg of oranges  is 2 dollars. I buy 5 kilos. What is the price?

$$\boxed{10} \text{ dollars}$$

Answer: To find the total price, multiply the price per kg of oranges by the number of kilos:

$$\begin{aligned} \text{Total price} &= 2 \text{ dollars per kg} \times 5 \text{ kg} \\ &= 10 \text{ dollars} \end{aligned}$$

So, the price for 5 kilos of oranges is 10 dollars.

**Ex 24:** The price per kg of cherries  is 5 dollars. I buy 4 kilos. What is the price?

$$\boxed{20} \text{ dollars}$$

Answer: To find the total price, multiply the price per kg of cherries by the number of kilos:

$$\begin{aligned} \text{Total price} &= 5 \text{ dollars per kg} \times 4 \text{ kg} \\ &= 20 \text{ dollars} \end{aligned}$$

So, the price for 4 kilos of cherries is 20 dollars.

## C CONVERSION OF WEIGHT UNITS

### C.1 CONVERTING WEIGHT UNITS

**Ex 25:** Convert:

$$2 \text{ kg} = \boxed{2000} \text{ g}$$

Answer:

- *Multiplication Method:*

$$\begin{aligned} 2 \text{ kg} &= 2 \times 1\,000 \text{ g} \\ &= 2\,000 \text{ g} \end{aligned}$$

- *Conversion Table Method:*

kg			g
2	0	0	0

So,

$$2 \text{ kg} = 2\,000 \text{ g}$$

**Ex 26:** Convert:

$$4 \text{ kg} = \boxed{4000} \text{ g}$$

Answer:

- *Multiplication Method:*

$$\begin{aligned} 4 \text{ kg} &= 4 \times 1\,000 \text{ g} \\ &= 4\,000 \text{ g} \end{aligned}$$

- *Conversion Table Method:*

kg			g
4	0	0	0

So,

$$4 \text{ kg} = 4\,000 \text{ g}$$

**Ex 27:** Convert:

$$3\,000 \text{ g} = \boxed{3} \text{ kg}$$

Answer:

- *Division Method:*

$$\begin{aligned} 3\,000 \text{ g} &= 3\,000 \div 1\,000 \text{ kg} \\ &= 3 \text{ kg} \end{aligned}$$

- *Conversion Table Method:*

kg			g
3	0	0	0

So,

$$3\,000 \text{ g} = 3 \text{ kg}$$



**Ex 28:** Convert:

$$8\,000\text{ g} = \boxed{8}\text{ kg}$$

*Answer:*

- *Division Method:*

$$\begin{aligned}8\,000\text{ g} &= 8\,000 \div 1\,000\text{ kg} \\ &= 8\text{ kg}\end{aligned}$$

- *Conversion Table Method:*

kg			g
8	0	0	0

So,

$$8\,000\text{ g} = 8\text{ kg}$$

## C.2 CONVERTING WEIGHTS USING DECIMALS

**Ex 29:** Convert:

$$2.5\text{ kg} = \boxed{2500}\text{ g}$$

*Answer:*

- *Multiplication Method:*

$$\begin{aligned}2.5\text{ kg} &= 2.5 \times 1\,000\text{ g} \\ &= 2\,500\text{ g}\end{aligned}$$

- *Conversion Table Method:*

kg			g
2	5	0	0.

So,

$$2.5\text{ kg} = 2\,500\text{ g}$$

**Ex 30:** Convert:

$$0.5\text{ kg} = \boxed{500}\text{ g}$$

*Answer:*

- *Multiplication Method:*

$$\begin{aligned}0.5\text{ kg} &= 0.5 \times 1\,000\text{ g} \\ &= 500\text{ g}\end{aligned}$$

- *Conversion Table Method:*

kg			g
0	5	0	0.

So,

$$0.5\text{ kg} = 500\text{ g}$$

**Ex 31:** Convert:

$$1\,500\text{ g} = \boxed{1.5}\text{ kg}$$

*Answer:*

- *Division Method:*

$$\begin{aligned}1\,500\text{ g} &= 1\,500 \div 1\,000\text{ kg} \\ &= 1.5\text{ kg}\end{aligned}$$

- *Conversion Table Method:*

kg			g
1.	5	0	0

So,

$$1\,500\text{ g} = 1.5\text{ kg}$$

**Ex 32:** Convert:

$$600\text{ g} = \boxed{0.6}\text{ kg}$$

*Answer:*

- *Division Method:*

$$\begin{aligned}600\text{ g} &= 600 \div 1\,000\text{ kg} \\ &= 0.6\text{ kg}\end{aligned}$$

- *Conversion Table Method:*

kg			g
0.	6	0	0

So,

$$600\text{ g} = 0.6\text{ kg}$$

## C.3 CONVERTING MIXED WEIGHT UNITS

**Ex 33:** Convert:

$$3\text{ kg } 200\text{ g} = \boxed{3200}\text{ g}$$

*Answer:*

$$\begin{aligned}3\text{ kg } 200\text{ g} &= 3\text{ kg} + 200\text{ g} \\ &= 3\,000\text{ g} + 200\text{ g} \\ &= 3\,200\text{ g}\end{aligned}$$

**Ex 34:** Convert:

$$8\text{ kg } 500\text{ g} = \boxed{8500}\text{ g}$$

*Answer:*

$$\begin{aligned}8\text{ kg } 500\text{ g} &= 8\text{ kg} + 500\text{ g} \\ &= 8\,000\text{ g} + 500\text{ g} \\ &= 8\,500\text{ g}\end{aligned}$$

**Ex 35:** Convert:

$$2\text{ kg } 500\text{ g} = \boxed{2.5}\text{ kg}$$

*Answer:*

$$\begin{aligned}2\text{ kg } 500\text{ g} &= 2\text{ kg} + 500\text{ g} \\ &= 2\text{ kg} + 0.5\text{ kg} \\ &= 2.5\text{ kg}\end{aligned}$$



**Ex 36:** Convert:

$$5\text{ kg } 800\text{ g} = \boxed{5.8}\text{ kg}$$

*Answer:*

$$\begin{aligned}5\text{ kg } 800\text{ g} &= 5\text{ kg} + 800\text{ g} \\ &= 5\text{ kg} + 0.8\text{ kg} \\ &= 5.8\text{ kg}\end{aligned}$$

## C.4 CALCULATING PRICES OF FRUITS

**Ex 37:**  The price per kg of lemons  is 4 dollars. I buy 500 g. What is the price?

dollars


Answer:

- **Converting:**

$$\begin{aligned} 500 \text{ g} &= 500 \div 1\,000 \text{ kg} \\ &= 0.5 \text{ kg} \end{aligned}$$

- **Finding Price:**

$$\begin{aligned} \text{Total price} &= 4 \text{ dollars per kg} \times 0.5 \text{ kg} \\ &= 2 \text{ dollars} \end{aligned}$$

**Ex 38:**  The price per kg of oranges  is 10 dollars. I buy 750 g. What is the price?

dollars



Answer:

- **Converting:**

$$\begin{aligned} 750 \text{ g} &= 750 \div 1\,000 \text{ kg} \\ &= 0.75 \text{ kg} \end{aligned}$$

- **Finding Price:**

$$\begin{aligned} \text{Total price} &= 10 \text{ dollars per kg} \times 0.75 \text{ kg} \\ &= 7.5 \text{ dollars} \end{aligned}$$

**Ex 39:**  The price per kg of apples  is 2 dollars. I buy 2 kg 500 g. What is the price?

dollars



Answer:

- **Converting:**

$$\begin{aligned} 2 \text{ kg } 500 \text{ g} &= 2 \text{ kg} + 500 \text{ g} \\ &= 2 \text{ kg} + 0.5 \text{ kg} \\ &= 2.5 \text{ kg} \end{aligned}$$

- **Finding Price:**

$$\begin{aligned} \text{Total price} &= 2 \text{ dollars per kg} \times 2.5 \text{ kg} \\ &= 5 \text{ dollars} \end{aligned}$$

**Ex 40:**  The price per kg of cherries  is 2 dollars. I buy 2 kg 600 g. What is the price?

dollars

Answer:

- **Converting:**

$$\begin{aligned} 2 \text{ kg } 600 \text{ g} &= 2 \text{ kg} + 600 \text{ g} \\ &= 2 \text{ kg} + 0.6 \text{ kg} \\ &= 2.6 \text{ kg} \end{aligned}$$

- **Finding Price:**

$$\begin{aligned} \text{Total price} &= 2 \text{ dollars per kg} \times 2.6 \text{ kg} \\ &= 5.2 \text{ dollars} \end{aligned}$$