

Scale Sense

Choose units and round measurements.

GRADE 4 • 4.MG.1.b.ii

4.MG.1.b.ii "Estimate and measure: weight/mass of an object to the nearest U.S. Customary unit (ounce, pound) and nearest metric unit (gram, kilogram); and"

NAME _____

DATE _____

CHOOSE AND ROUND

Use ounces or grams for light objects. Use pounds or kilograms for heavier objects. To round a scale reading, look at the decimal part. A decimal part less than 0.5 rounds down, and 0.5 or more rounds up.

WORKED EXAMPLE

A scale shows 7.3 ounces for a toy car. What is its weight to the nearest ounce?

1. The whole-number part is 7.
2. The decimal part, 0.3, is less than 0.5.
3. Round down to 7 ounces.

Answer: 7 ounces

PRACTICE 6 problems

- 1** A marble has a mass of 4.6 g. Round to the nearest gram.

ANSWER _____

- 2** A bicycle helmet weighs 3.2 lb. Round to the nearest pound.

ANSWER _____

- 3** A lump of art clay has a mass of 428.7 g. Round to the nearest gram.

ANSWER _____

- 4** A bag of dog food has a mass of 5.8 kg. Round to the nearest kilogram.

ANSWER _____

- 5** Which U.S. Customary unit is best for measuring the weight of a paperback book: ounces or pounds?

ANSWER _____

- 6** Which metric unit is best for measuring the mass of a watermelon: grams or kilograms?

ANSWER _____

APPLY IT Show your work

- 1** Nia is mailing a bundle of comic books. The bundle weighs 1 pound 11 ounces. What is its weight to the nearest pound?

WORK SPACE

ANSWER _____

- 2** The robotics club measures a battery for its small robot. The battery has a mass of 684.2 g. What is its mass to the nearest gram?

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

A camping backpack has a mass of 2 kilograms 650 grams. Jordan says it rounds to 2 kilograms because 650 is less than 1,000. Is Jordan correct? Explain your reasoning.

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	A marble has a mass of 4.6 g. Round to the nearest gram.	5 grams
2	A bicycle helmet weighs 3.2 lb. Round to the nearest pound.	3 pounds
3	A lump of art clay has a mass of 428.7 g. Round to the nearest gram.	429 grams
4	A bag of dog food has a mass of 5.8 kg. Round to the nearest kilogram.	6 kilograms
5	Which U.S. Customary unit is best for measuring the weight of a paperback book: ounces or pounds?	ounces
6	Which metric unit is best for measuring the mass of a watermelon: grams or kilograms?	kilograms

PART 2 • APPLY IT

- 2 pounds** There are 16 ounces in 1 pound, so the halfway point is 8 ounces. Since 11 ounces is more than 8 ounces, round up to 2 pounds.
- 684 grams** The decimal part is 0.2. Since 0.2 is less than 0.5, round down to 684 grams.

CHALLENGE

No. The halfway point between 2 kilograms and 3 kilograms is 2 kilograms 500 grams. Since 2 kilograms 650 grams is past the halfway point, it rounds to 3 kilograms.

Accept standard unit abbreviations: oz, lb, g, and kg. For the challenge, accept an explanation that identifies 2 kilograms 500 grams as the halfway point and gives 3 kilograms.