

Name:	████████ Daneker
Instructor:	Samuel Chukwuemeka
Objective:	To convert a measurement from one unit to another unit.
Measurement:	Mass
1st Given Unit:	Customary Unit (Ounce)
To Convert to:	Metric Unit (Gram)
2nd Given Unit	Metric Unit (Gram)
To Convert to:	Customary Unit (Ounce)
Container Used:	Cheez It: Baked Snack Crackers Box (<i>Refer to bottom left-hand corner.</i>)



Convert 4.5 oz to g.

From given tables:

$$1 \text{ lb} = 16 \text{ oz}$$

$$1 \text{ lb} = 453.59237 \text{ g}$$

$$1 \text{ lb} = 1 \text{ lb}$$

$$\longrightarrow 16 \text{ oz} = 453.59237 \text{ g}$$

First Method: Unity Fraction Method

Let q = mass of 4.5 oz in g

$$4.5 \text{ oz} * \frac{\dots lb}{\dots oz} * \frac{\dots g}{\dots lb} = q$$

$$4.5 \text{ oz} * \frac{1 \text{ lb}}{16 \text{ oz}} * \frac{453.59237 \text{ g}}{1 \text{ lb}} = q$$

$$q = \frac{4.5 * 1 * 453.59237}{16 * 1}$$

$$q = \frac{2041.165665}{16}$$

$$q = 127.5728541 \text{ g}$$

$$q \approx 127 \text{ g}$$

Calculated Value: 127.5728541 g

Rounded number: 127 g

Value on box: 127 g

Type of rounding: The calculated value was rounded down to get the value of the box.

Convert 128 g to oz.

From given tables:

$$453.59237 \text{ g} = 1 \text{ lb}$$

$$1 \text{ lb} = 16 \text{ oz}$$

$$\longrightarrow 453.59237 \text{ g} = 16 \text{ oz}$$

Second Method: Proportional Reasoning Method

Let r = mass of 128 g in oz

<i>g</i>	<i>oz</i>
453.59237	16
128	<i>r</i>

$$\frac{r}{128} = \frac{16}{453.59237}$$

Multiply both sides by 128

$$128 * \frac{r}{128} = 128 * \frac{16}{453.59237}$$

$$r = \frac{128 * 16}{1 * 453.59327}$$

$$r = 4.51506713 \text{ oz}$$

$$r \approx 4.5 \text{ oz}$$

As is: 4.51506713 oz

Rounded number: 4.5 oz

How it was rounded: To the tenths place.

This confirms the quantity in oz on the Cheez It box.