

2.2 Independent Practice

Solve. Show your work. Round the coefficient to the nearest tenth.

3 $3.8 \cdot 10^3 + 5.2 \cdot 10^4$ $5.6 \cdot 10^4$

4 $8.1 \cdot 10^5 - 2.8 \cdot 10^4$ $7.8 \cdot 10^5$

The table shows the amounts of energy, in Calories, contained in various foods.

Food (per 100 g)	Energy (Cal)
Chicken breast	$1.71 \cdot 10^5$
Raw potato	$7.7 \cdot 10$
Cabbage	$2.5 \cdot 10^4$
Salmon	$1.67 \cdot 10^5$

5 Find the total energy in each food combination. Write your answer in scientific notation. Round coefficients to the nearest tenth.

a) Chicken breast and cabbage $2.0 \cdot 10^5$ Cal


b) Cabbage and raw potato $2.5 \cdot 10^4$ Cal

7 How many more Calories are in salmon than in cabbage? $1.4 \cdot 10^5$ Cal

- 14 Factories A and B produce potato chips. They use the same basic ingredients: potatoes, oil, and salt. Last year, each factory used different amounts of these ingredients, as shown in the table.

Ingredient	Factory A Amount Used (lb)	Factory B Amount Used (lb)
Potato	$4.87 \cdot 10^6$	3,309,000
Oil	356,000	$5.61 \cdot 10^5$
Salt	$2.87 \cdot 10^5$	193,500

- a) Which factory used more potatoes last year? How many more potatoes did it use? **Factory A; $1.561 \cdot 10^6$ lb**
- b) Which factory used more oil last year? How much more oil did it use than the other factory? **Factory B; $2.05 \cdot 10^5$ lb**
- c) Find the total weight of the ingredients used by each factory. Write your answer in scientific notation. **Factory A: $5.513 \cdot 10^6$ lb**
Factory B: $4.0635 \cdot 10^6$ lb

- 15  *Math Journal* The approximate population of the following countries in North America in 2011 are shown in the table. Explain how to use scientific notation to find the total population of the countries.

Country	Population
Mexico	110,000,000
Haiti	9,700,000
Costa Rica	4,600,000
United States	310,000,000