UNIT 1 • RELATIONSHIPS BETWEEN QUANTITIES AND EXPRESSIONS Lesson 2: Units of Measure

Practice 1.2.1: Converting Units

For problems 1–3, convert the units as directed.

- 1. The moon travels 3,683 kilometers in an hour, and it takes 27.32 days to complete its orbit. How far does the moon travel in that time?
- 2. Convert 40 square centimeters to square meters.
- 3. If Hari and Don each have two cases of cotton candy spools, and each case has 5 spools of cotton candy inside, how many spools of cotton candy do they have in total?

Use the information given in the following table to solve problems 4–7.

U.S. customary	1 inch	1 gallon	1 pound
Metric	2.54 centimeters	3.79 liters	454 grams

- 4. A particular species of bamboo can grow up to 91 centimeters in a day. How fast is this in inches per hour?
- 5. King cobras can grow to be more than 4 meters long. How long is this in feet?
- 6. The average swallow weighs 5 ounces. An average coconut weighs 1.44 kilograms. How many swallows would it take to outweigh the coconut? Round your answer up to the nearest whole number.
- 7. Mount Everest is 8,848 meters above sea level at its peak. How high is this in miles?

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Use the given information to solve problems 8–10.

Two different teams have each built a bottle rocket as part of a science project. The following graphs show data for the two rocket launches.



8. Which team's rocket stayed in the air longer?

9. Which team's rocket attained a greater height during its flight?

10. Between the time stamps of 3 seconds and 4 seconds, Team A's rocket had an average speed of 1 meter per second, while Team B's rocket had an average speed of 2 feet per second. Which team's rocket was moving faster over this period of time?

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