

Name: _____

Date: _____

UNIT 1 • RELATIONSHIPS BETWEEN QUANTITIES AND EXPRESSIONS

Lesson 2: Units of Measure

Practice 1.2.1: Converting Units

A

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?

continued

Name: _____

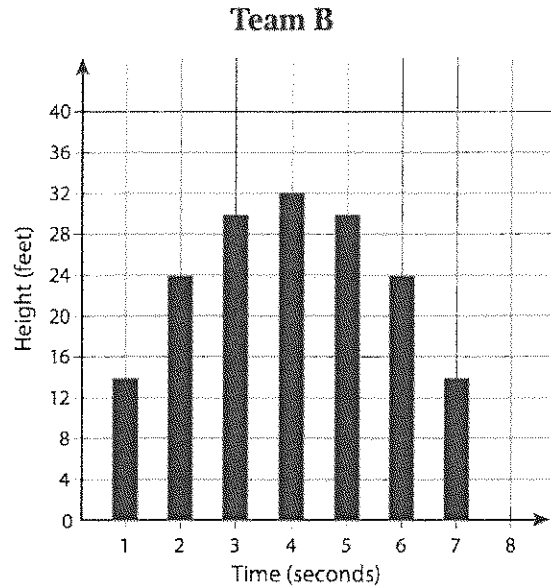
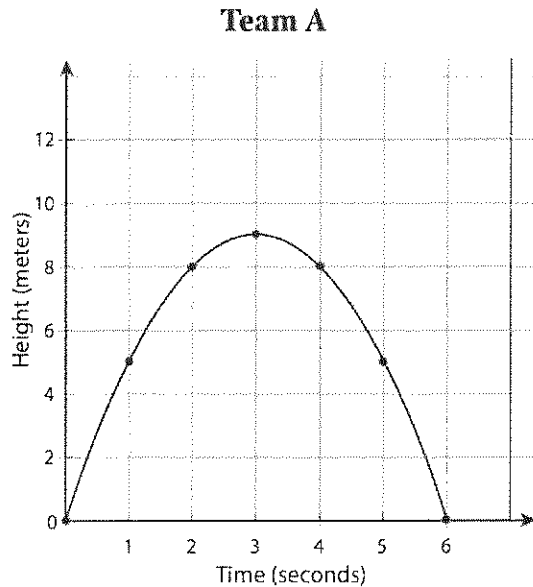
Date: _____

UNIT 1 • RELATIONSHIPS BETWEEN QUANTITIES AND EXPRESSIONS

Lesson 2: Units of Measure

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?