****

**Eureka Math Tips for Parents**

Grade 4 • Module 7

|  |  |
| --- | --- |
| **Exploring Measurement with Multiplication**In this module students build their competencies in measurement as they relate multiplication to the conversion of measurement units. Throughout the module, students explore multiple strategies for solving measurement problems involving unit conversion.  | **Grade Level Standards**4.MD.1, 4.MD.2, 4.NBT.5, 4.OA.1, 4.OA.2, 4.OA.3**Student Report Card**Solves word problems involving measurements. |

**Key Vocabulary**

* **Customary system of measurement:** Measurement system used in the United States that includes such units as yards, pounds and gallons
* **Customary Unit:** e.g., foot, ounce, quart
* **Cup ( c ):** Customary unit of measure for liquid volume
* **Gallon (gal):** Customary unit of measure for liquid volume
* **Metric system of measurement:** Base ten system of measurement used internationally that includes such units as meters, kilograms and liters
* **Metric unit:** kilometer, gram, milliliter
* **Ounce (oz):** Customary unit of measure for weight
* **Pint (pt):** Customary unit of measure for liquid volume
* **Pound (lb):** Customary unit of measure for weight
* **Quart (qt):** Customary unit of measure for liquid volume

**How you can help at home:**

* As often as possible, notice and discuss customary units like ounces and pounds with your student (in the grocery store, at home, etc).
* Review time by asking questions such as “How many more minutes until the next hour?” or “How many hours until the next day?”

**Models and Representations**

|  |  |  |  |
| --- | --- | --- | --- |
|

|  |
| --- |
| Students use two-column tables to practice conversion rates. Students generate a two-column conversion table by listing the number of ounces within 1 pound, 2 pounds, and so on, up to 10 pounds. Tables for other measurement units are then generated in a similar fashion. Students then reason about why they do not need to complete the tables beyond 10 of the larger units. |
| Students will practice addition and subtraction of mixed units of measurements to solve multi-step word problems.*Judy spent 1 hour and 15 minutes less than Sandy exercising last week. Sandy spent 50 minutes less than Mary, who spent 3 hours at the gym. How long did Judy exercise?* | Students use their knowledge of fractions and conversion tables to convert mixed number units into smaller units (for example: 1 $\frac{3}{4}$ pounds equals 28 ounces) to solve multi-step problems. *Erin has* 1$\frac{3}{4}$ *pounds of apples. A recipe for apple tarts requires 4 ounces of apples. How many apple tarts can Erin make?* |

 |