

DUVAL Math

Parent Tips

Place Value and Problem Solving with Units of Measure

In this Module, students will tie place value learning to some real-world work with measurement using the metric system. Students will also work on telling time and solving problems related to elapsed time.

Before This Module: Students explore the meaning of multiplication and division, working from concrete to abstract examples.

What Comes After This Module: We will continue our work on multiplication and division, this time working to build our knowledge of units of 6, 7, 8, and 9, as well as, multiples of 10.

Third Grade,
Module 2

Special points
of interest:

- ✓ Word to Know
- ✓ Time Measurement and Problem Solving
- ✓ Place Value and Problem Solving with Units of Measure
- ✓ Mathematical Practices
- ✓ Want to help with homework?

Words to Know

Important Metric Words:

Gram (g)
Kilogram (kg)
Liter (L)
Milliliter (mL)
Centimeter (cm)
Meter (m)



Analog clock: a clock that is not digital

Capacity: the amount that a container can hold

Compose: change 10 smaller units for 1 of the next unit on the place value chart

Interval: time passed, or a segment on the number line

Plot: locate and label a point on the number line

Point: A specific location on the number line

Questions?

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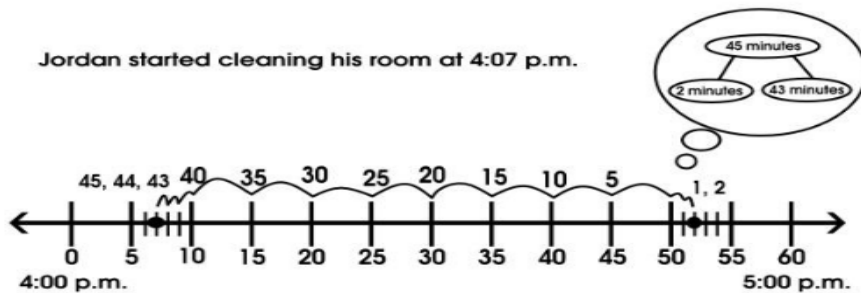
Time Measurement and Problem Solving

In lesson 2, students use a number line to understand that time is a continuous unit of measurement. Students apply what they learn about skip-counting by fives to telling time on a number line. They learn how to read/draw a number line with hours as end-points, and minutes in multiples of five. In lesson 3, students begin to use a number line that is divided into one-minute intervals.

Start Unknown Problem – End time and minutes elapsed known, start time unknown.

Jordan cleans his room for 45 minutes. He finished cleaning his room at 4:52 p.m. What time did Jordan start cleaning his room?

Jordan started cleaning his room at 4:07 p.m.

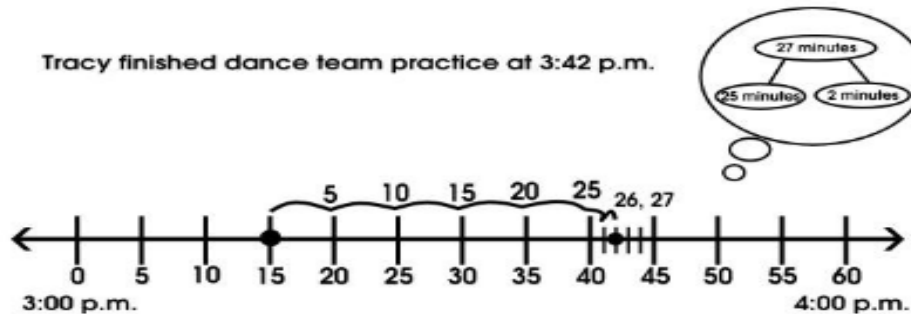


We need to count back 45 minutes, so we count 2, then 40, then 3 more.

Result Unknown Problem – Start time and minutes elapsed known, end time unknown.

Tracy starts dance team practice at 3:15 p.m. She practices for 27 minutes. What time does dance practice end?

Tracy finished dance team practice at 3:42 p.m.



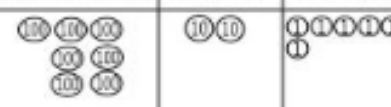
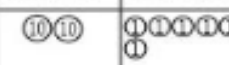
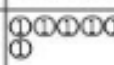
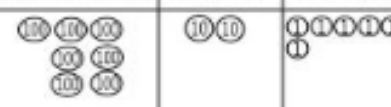
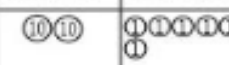
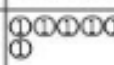


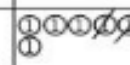


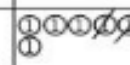
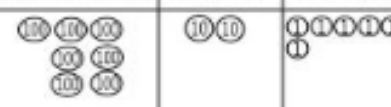
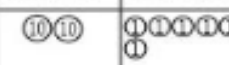
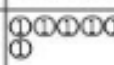


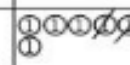
We need to count 27 minutes, so we skip-count to 25 and then add on 26, 27.

Place Value and Problem Solving with Units of Measure

Example Problem and Answer

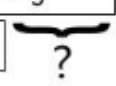
Two and Three Digit Measurement and Subtraction-Using Place Value Chart

Sabrina had 726 milliliters of water when she started her hiking trip. She as 182 milliliters of water after her hiking trip. How many milliliters of water did Sabrina drink?

$726 - 182 = \underline{\quad}$ <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr> <th style="padding: 5px;">hundreds</th> <th style="padding: 5px;">tens</th> <th style="padding: 5px;">ones</th> </tr> <tr> <td style="padding: 5px;">  </td> <td style="padding: 5px;">  </td> <td style="padding: 5px;">  </td> </tr> <tr> <td style="padding: 5px; border-top: 1px solid black;">7</td> <td style="padding: 5px; border-top: 1px solid black;">2</td> <td style="padding: 5px; border-top: 1px solid black;">6</td> </tr> </table>	hundreds	tens	ones				7	2	6	$726 - 182 = \underline{\quad}$ <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr> <th style="padding: 5px;">hundreds</th> <th style="padding: 5px;">tens</th> <th style="padding: 5px;">ones</th> </tr> <tr> <td style="padding: 5px;">  </td> <td style="padding: 5px;">  </td> <td style="padding: 5px;">  </td> </tr> <tr> <td style="padding: 5px; border-top: 1px solid black;">5</td> <td style="padding: 5px; border-top: 1px solid black;">4</td> <td style="padding: 5px; border-top: 1px solid black;">4</td> </tr> </table>	hundreds	tens	ones				5	4	4
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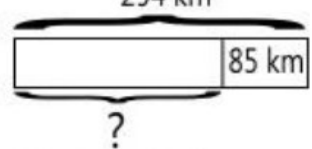
Example Problem and Answer

Solve using a tape diagram- Tammy went to the fruit stand. She bought 682 grams on strawberries on Monday. On Tuesday, she buys 273 grams of strawberries. How many more strawberries did Tammy buy on Monday than on Tuesday?

682 g		$\begin{array}{r} 7 \ 12 \\ 682 \\ - 273 \\ \hline 409 \end{array}$
273 g		

Solve using a tape diagram —

John has to drive from Lafayette to New Orleans. The total distance is 294 kilometers. John has 85 kilometers left to drive, how many kilometers did John drive so far?

294 km 		$\begin{array}{r} 8 \ 14 \\ 294 \\ - 85 \\ \hline 209 \end{array}$
John drove 209 km		

Standards for Mathematical Practice

Mathematical Practices Addressed in this Module:

MP.2 Reason abstractly or quantitatively. Students decontextualize metric measurements as they solve problems involving addition, subtraction, and multiplication. They round to estimate, and the precisely solve problems, evaluating solution with reference to units and with respect to rea; world contexts.

MP.4 Model with mathematics. Students model measurements on the place value chart. They create drawings and diagrams and write equations to model and solve word problems involving metric units and intervals of time in minutes.

MP.6 Attend to precision. Students round to estimate sums and differences, and then use the standard algorithms for addition and subtraction to calculate. They reason about the precision of their solutions by comparing estimations with calculations and by attending to specific units of measure.

MP.7 Look for and make use of structure. Students model measurements on the place value chart. Through modeling, they relate different units of measure and analyze the multiplicative relationship of the base ten system.

Want to help with homework?

A great resource can be found following the link below:

http://www.oakdale.k12.ca.us/ENY_Hmwk_Intro_math

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Accountability & As... www.fsassessments... EmailList - All items Spotify Web Player Teacher Academy 2... March 2015 NTI: Gr... Florida Students

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Math Homework Help

Engage New York (ENY) Homework provides additional practice for math that is learned in class.

This site is intended to help guide students/parents through assigned homework. You will see a sample of what was done in class and how it was completed correctly. Below is a *sample* of the top of the homework page. It is for **Grade 3, Module 1, Lesson 1**.

NYS COMMON CORE MATHEMATICS CURRICULUM Lesson 1 Homework Grade 3 3•1 Module 1

Begin by clicking on your student's **GRADE**, next select the **MODULE**, and finally select the **LESSON**.

▶ PK ▶ K ▶ 1st ▶ 2nd ▶ 3rd
▶ 4th ▶ 5th ▶ 6th ▶ 7th ▶ 8th