Eureka Math

4th Grade
Module 3
Lesson 35

At the request of elementary teachers, a team of Bethel & Sumner educators met as a committee to create Eureka slideshow presentations. These presentations are not meant as a script, nor are they required to be used. Please customize as needed. Thank you to the many educators who contributed to this project!

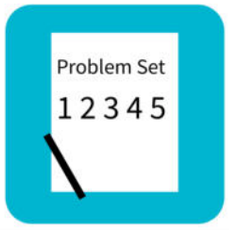
Directions for customizing presentations are available on the next slide.

Icons

Read, Draw, Write

Learning Target

Personal White Board

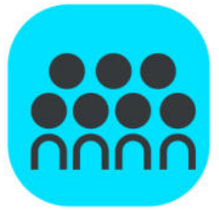


Problem Set

Manipulatives Needed

Fluency

Think Pair Share



Whole Class

Individual

Partner

Small Group

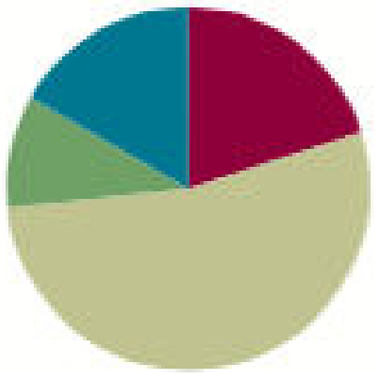
Small Group Time

Lesson 35

Objective: Multiply two-digit multiples of 10 by two-digit numbers using the area model.

Suggested Lesson Structure

Fluency Practice	(12 minutes)
Application Problem	(6 minutes)
Concept Development	(32 minutes)
Student Debrief	(10 minutes)
Total Time	**(60 minutes)**



Multiply two-digit multiples of 10 by two-digit numbers using the area model

Draw a unit fraction

Draw a quadrilateral with 4 equal sides and 4 right angles.

What's the name of quadrilateral with 4 sides and 4 right angles.

Partition into 6 equal parts.

Shade in 1 part of 6

What fraction is shaded?

Divide

Divide 348/6 in three different ways.

Place Value Disks

Area model

Standard algorithm

Application Problem

For 30 days of one month, Katie exercised for 25 minutes a day. What is the total number of minutes that Katie exercised? Solve using a place value chart.

What is the product of 30 and 25?

What number sentence could we write for the question above?

We are going to use the area model to solve 30 x 25.

Since we know that we can decompose 30 into 3 x 10 we can show 30 x 25 as 10 x (3 x25).

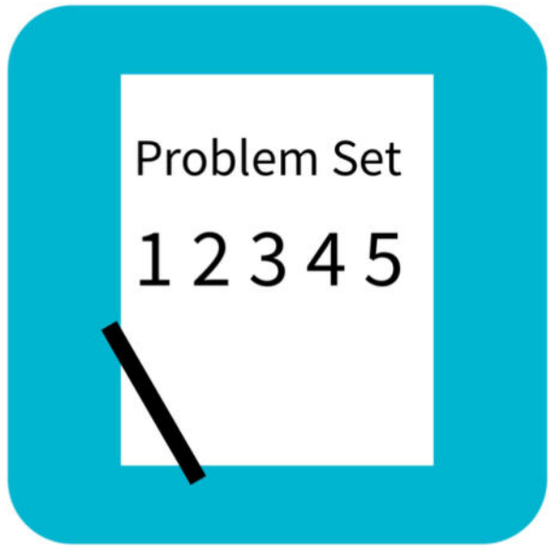
The first area model will show 3 x 25. Don’t forget to decompose 25 into 20 and 5.

What would the area model look like for 30 x 25?

Find the product of 60 and 34 using the area model with your shoulder partner. Then, record the partial products and solve.

Find the product of 60 and 34 using the area model with your shoulder partner.

Find the product of 90 and 34 using the area model.

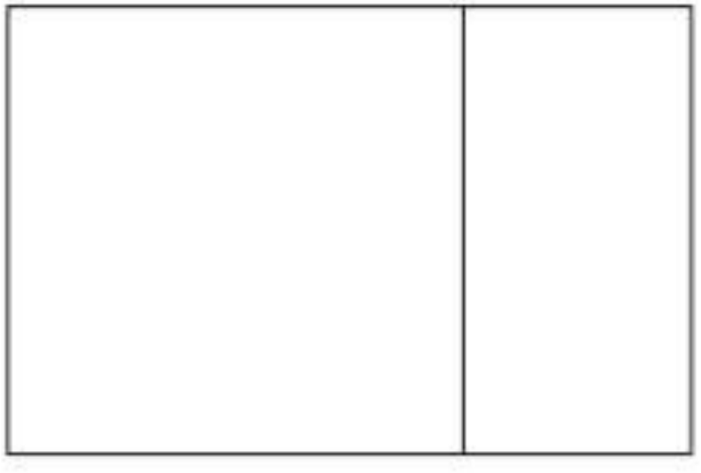


Problem Set

Name _____ Date _____

Use an area model to represent the following expressions. Then, record the partial products and solve.

1. 20×22



$$\begin{array}{r} 22 \\ \times\ 20 \\ \hline \\ + \\ \hline \end{array}$$

Debrief

- How is Problem 1 of the Problem Set less complex than the others?
- How do Problems 3–7 lend themselves to the use of the area model?
- Can you explain why Problems 6 and 7 have the same product?
- What can you say about area models for Problems 8 and 9?
- When we record partial products, do we have to start with the one with the smallest place value? Will we get a different result if we start with the tens?
- When we multiply by a multiple of 10, why is there always a 0 in the ones place?
- What significant math vocabulary did we use today to communicate precisely?

Exit Ticket

Exit Ticket (3 minutes)

After the Student Debrief, instruct students to complete the Exit Ticket. A review of their work will help with assessing students' understanding of the concepts that were presented in today's lesson and planning more effectively for future lessons. The questions may be read aloud to the students.