Eureka Math

4th Grade
Module 3
Lesson 38

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.

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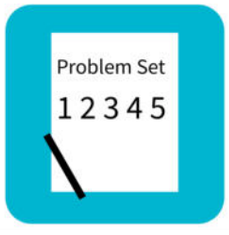
Icons

Read, Draw, Write

Learning Target

Personal White Board

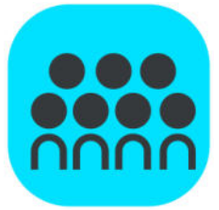


Problem Set

Manipulatives Needed

Fluency

Think Pair Share



Whole Class

Individual

Partner

Small Group

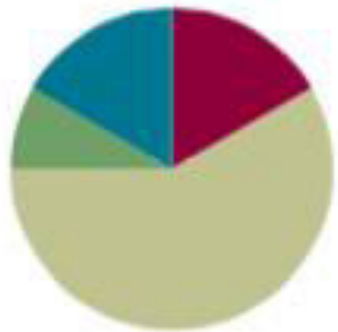
Small Group Time

Lesson 38

Objective: Transition from four partial products to the standard algorithm for two-digit by two-digit multiplication.

Suggested Lesson Structure

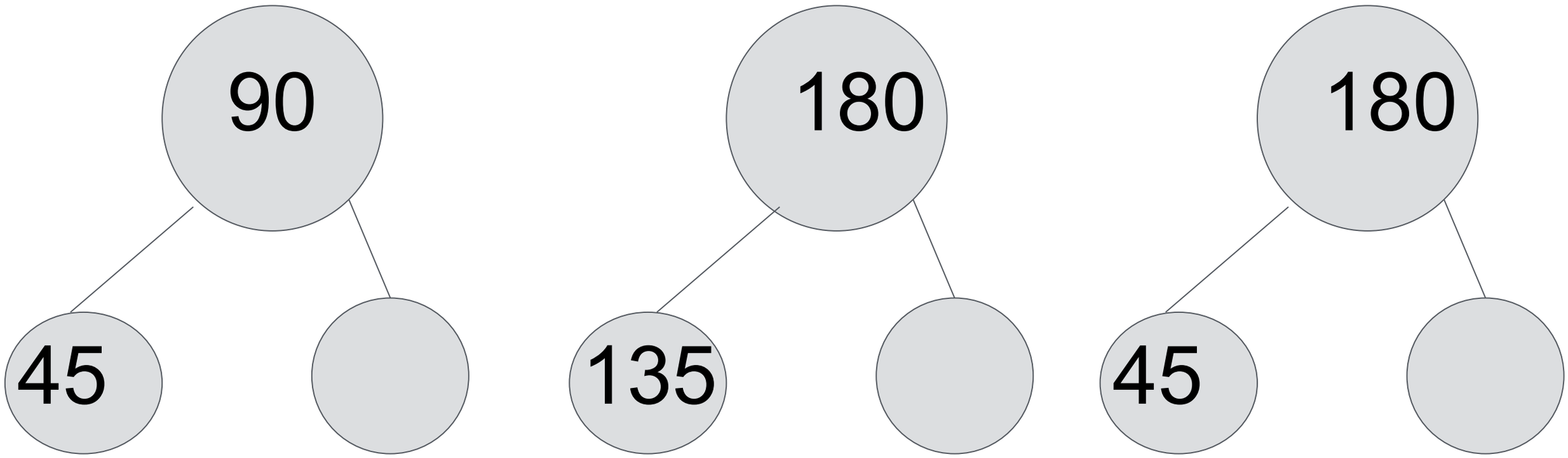
Fluency Practice	(10 minutes)
Application Problem	(5 minutes)
Concept Development	(35 minutes)
Student Debrief	(10 minutes)
Total Time	**(60 minutes)**



Transition from four partial products to the standard algorithm for two-digit by two-digit multiplication.

Draw a unit fraction

Decompose 90 and 180



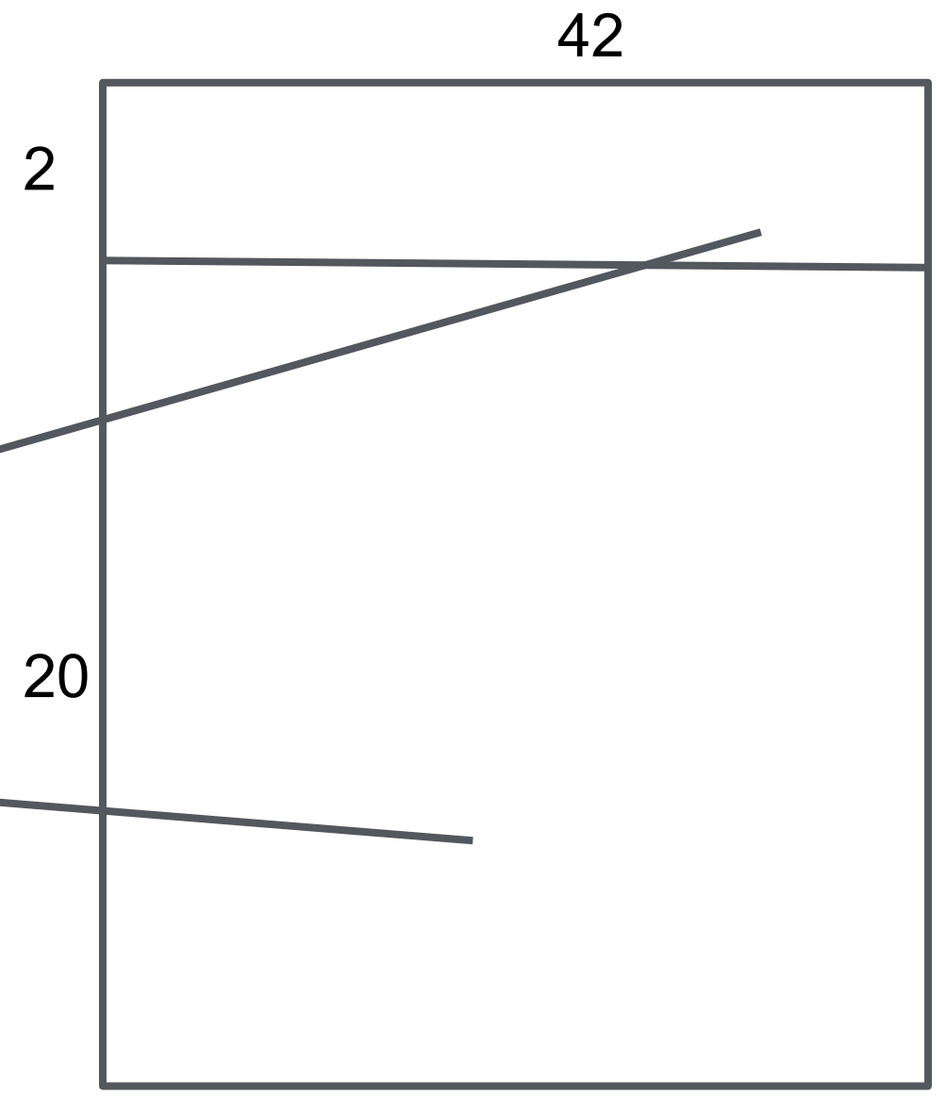
Application Problem

Sandy's garden has 42 plants in each row. She has 2 rows of yellow corn and 20 rows of white corn. Draw an area model (representing 2 partial products) to show how much yellow corn and white corn has been planted in the garden.

Connecting to standard algorithm

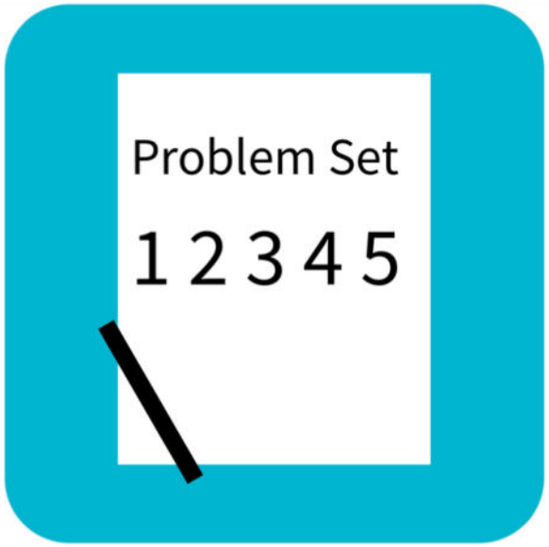
Draw an area model to solve for the product of 22 x 42.

$$\begin{array}{r} 42 \\ \times\ 22 \\ \hline 84 \\ 840 \\ \hline 924 \end{array}$$



Connecting area model to standard.

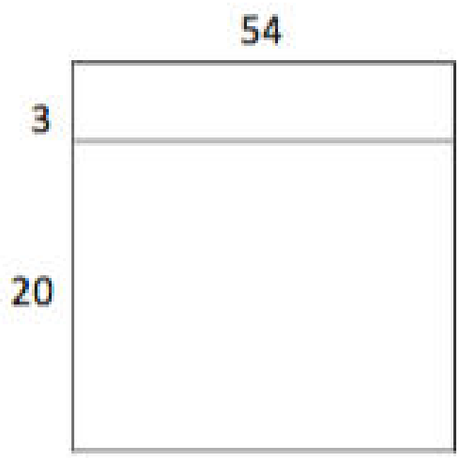
Solve 29 x 62



Problem Set

Name _____ Date _____

1. Express 23 × 54 as two partial products using the distributive property. Solve.



23 × 54 = (___ fifty-fours) + (___ fifty-fours)

5 4
× 2 3
_____
_____ 3 × ____
_____ 20 × ____
_____

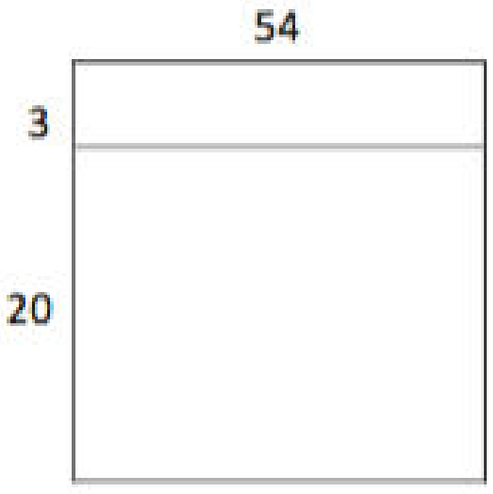
Debrief

- How does the structure of determining the answers to Problems 1 and 2 help you to solve Problem 3?
- How is recording multiplication using the multiplication algorithm the same as when we solved using two partial products? How is it different?
- How did your understanding of two partial products help you to learn the multiplication algorithm?
- How is the multiplication algorithm similar to the algorithm for addition? How is it different?
- What might be an advantage of using the multiplication algorithm to multiply?
- Explain to your partner how to multiply using the multiplication algorithm.
- What new (or significant) math vocabulary did we use today to communicate precisely?
- How did the Application Problem connect to today's lesson?

Exit Ticket

Name _____ Date _____

1. Express 23 × 54 as two partial products using the distributive property. Solve.



23 × 54 = (___ fifty-fours) + (___ fifty-fours)

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