

Lesson 14: Practice an Algorithm Using Partial Quotients

Standards Alignments

Addressing 5.NBT.B.6

Teacher-facing Learning Goals

- Divide four-digit dividends by two-digit divisors using an algorithm using partial quotients.

Student-facing Learning Goals

- Let's practice using an algorithm using partial quotients.

Lesson Purpose

The purpose of this lesson is for students to practice using an algorithm using partial quotients.

In previous lessons, students learned to use an algorithm using partial quotients to evaluate division expressions involving two-digit divisors. In this lesson, students extend their work in two ways. First, using partial quotients requires care in finding multiples and subtracting those multiples or partial quotients. Students identify and correct errors in multiplication and subtraction. Then they find quotients of larger numbers. Here the multiplication and subtraction demands increase and students see the first cases where they can subtract 100 or a multiple of 100 of the divisor from the dividend.

Access for:

Students with Disabilities

- Action and Expression (Activity 2)

English Learners

- MLR8 (Activity 1)

Instructional Routines

Which One Doesn't Belong? (Warm-up)

Lesson Timeline

Warm-up	10 min
Activity 1	20 min
Activity 2	15 min

Teacher Reflection Question

It is important for students to build procedural skills from conceptual understanding. How will you connect student thinking to support each student in using increasingly more efficient multiples of the divisor when they use an

Lesson Synthesis

10 min

algorithm using partial quotients?

Cool-down

5 min

Cool-down (to be completed at the end of the lesson)

🕒 5 min

Divide Four-digit Numbers

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Student-facing Task Statement

Find the value of $1,736 \div 28$.

$$28 \overline{) 1,736}$$

Student Responses

62. Sample response:

$$\begin{array}{r}
 \boxed{62} \\
 2 \\
 10 \\
 50 \\
 \hline
 28 \overline{) 1,736} \\
 \underline{-1,400} \\
 336 \\
 \underline{- 280} \\
 56 \\
 \underline{- 56} \\
 0
 \end{array}$$