Lesson 13: Divide Using Partial Quotients

- Let's use an algorithm using partial quotients to divide three-digit and four-digit dividends by two-digit divisors.

Warm-up: Number Talk: Divide

Find the value of each expression mentally.

- $110 \div 10$

- $121 \div 11$

- $132 \div 12$

- $154 \div 14$

13.1: Compare Solutions

1. Use an algorithm using partial quotients to find the value of one of the quotients. Be prepared to explain how you found the quotient.

   Partner 1:   Partner 2:

   $$32 \overline{)608}$$ $$19 \overline{)589}$$

2. Explain to your partner how you found the value of the quotient.

3. Pair up with another group and compare your work.

13.2: Estimate and Solve

Estimate the value of each quotient. Then, use an algorithm using partial quotients to find the value.

1. A reasonable estimate for $612 \div 34$ is:

$$34\overline{)612}$$

2. A reasonable estimate for $529 \div 23$ is:

$$23\overline{)529}$$

3. A reasonable estimate for $1,044 \div 29$ is:

$$29\overline{)1,044}$$