Name _____   Date _____

1. Divide. Then, check using multiplication. The first one is done for you.

   a. 487 ÷ 21

   $$\begin{array}{r} 2\ 3\ \text{R}\ 4 \\ 21\ \overline{)\ 4\ 8\ 7} \\ -\ \ 4\ 2 \\ \hline 6\ 7 \\ -\ 6\ 3 \\ \hline 4 \end{array}$$

   Check:

   21 × 23 = 483

   483 + 4 = 487

   b. 485 ÷ 15

   $$\begin{array}{r} 3\ 2\ \text{R}5 \\ 15\ \overline{)\ 4\ 8\ 5} \\ -45 \\ \hline 35 \\ -30 \\ \hline 5 \end{array}$$

   Check:

   $$\begin{array}{r} 32 \\ \times\ 15 \\ \hline 480 \end{array} \quad \begin{array}{r} 480 \\ +\ \ 5 \\ \hline 485 \end{array} \quad ✓$$

   c. 700 ÷ 21

   $$\begin{array}{r} 3\ 3\ \text{R}7 \\ 21\ \overline{)\ 7\ 0\ 0} \\ -63 \\ \hline 70 \\ -63 \\ \hline 7 \end{array}$$

   Check:

   $$\begin{array}{r} 33 \\ \times\ 21 \\ \hline 693 \end{array} \quad \begin{array}{r} 693 \\ +\ \ 7 \\ \hline 700 \end{array} \quad ✓$$

   d. 399 ÷ 31

   $$\begin{array}{r} 1\ 2\ \text{R}27 \\ 31\ \overline{)\ 3\ 9\ 9} \\ -31 \\ \hline 89 \\ -62 \\ \hline 27 \end{array}$$

   Check:

   $$\begin{array}{r} 31 \\ \times\ 12 \\ \hline 372 \end{array} \quad \begin{array}{r} 372 \\ +\ \ 27 \\ \hline 399 \end{array} \quad ✓$$

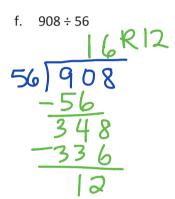**Lesson 22:** Divide three- and four-digit dividends by two-digit divisors resulting in two- and three-digit quotients, reasoning about the decomposition of successive remainders in each place value.
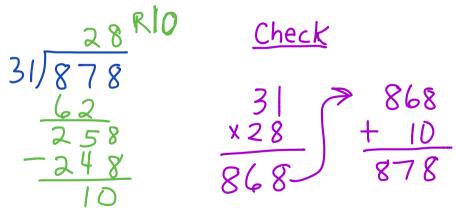
EUREKA MATH™

305

e. 820 ÷ 42

$$42\overline{)820}$$ → 19 R22

```
   1 9  R22
42)8 2 0
  -4 2 ↓
   4 0 0
  -3 7 8
     2 2
```

Check:

```
    4 2  ⟶  7 9 8
  × 1 9    + 2 2
  ───────  ───────
  7 9 8     8 2 0
```
✓

f. 908 ÷ 56

```
     1 6  R12
56)9 0 8
  -5 6
   3 4 8
  -3 3 6
     1 2
```

Check:

```
    5 6  ⟶  8 9 6
  × 1 6    + 1 2
  ───────  ───────
  8 9 6     9 0 8
```
✓

2. When dividing 878 by 31, a student finds a quotient of 28 with a remainder of 11. Check the student's work, and use the check to find the error in the solution.

```
     2 8  R10
31)8 7 8
   6 2
   2 5 8
  -2 4 8
     1 0
```

Check

```
    3 1  ⟶  8 6 8
  × 2 8    +   1 0
  ───────  ───────
  8 6 8     8 7 8
```

The remainder should be 10, not 11.

Lesson 22: Divide three- and four-digit dividends by two-digit divisors resulting in two- and three-digit quotients, reasoning about the decomposition of successive remainders in each place value.

306

EUREKA MATH™