

## Lesson 18 Practice Problems

1. Andre and Jada both found  $657 \div 3$  using the partial quotients method, but they did the calculations differently, as shown here.

$$\begin{array}{r}
 \boxed{219} \\
 9 \\
 10 \\
 200 \\
 3 \overline{)657} \\
 \underline{-600} \\
 57 \\
 \underline{-30} \\
 27 \\
 \underline{-27} \\
 0
 \end{array}$$

Andre's Work

$$\begin{array}{r}
 \boxed{219} \\
 9 \\
 60 \\
 100 \\
 50 \\
 3 \overline{)657} \\
 \underline{-150} \\
 507 \\
 \underline{-300} \\
 207 \\
 \underline{-180} \\
 27 \\
 \underline{-27} \\
 0
 \end{array}$$

Jada's Work

- a. How is Jada's work the same as Andre's work? How is it different?

- b. Explain why they have the same answer.

2. Here is a long-division calculation of  $917 \div 7$ .

$$\begin{array}{r}
 131 \\
 7 \overline{)917} \\
 \underline{-7} \\
 21 \\
 \underline{-21} \\
 7 \\
 \underline{-7} \\
 0
 \end{array}$$

- a. There is a 7 under the 9 of 917. What does this 7 represent?

- b. What does the subtraction of 7 from 9 mean?

- c. Why is a 1 written next to the 2 from  $9 - 7$ ?

3. Han's calculation of  $972 \div 9$  is shown here.

$$\begin{array}{r}
 180 \\
 9 \overline{) 972} \\
 \underline{- 9} \phantom{0} \\
 72 \\
 \underline{- 72} \\
 0 \\
 \underline{- 0} \\
 0
 \end{array}$$

a. Find  $180 \cdot 9$ .

b. Use your calculation of  $180 \cdot 9$  to explain how you know Han has made a mistake.

c. Identify and correct Han's mistake.

4. Find each quotient.

a.

$$5 \overline{) 465}$$

b.

$$12 \overline{) 924}$$

c.

$$3 \overline{) 1107}$$

5. The mass of one coin is 16.718 grams. The mass of a second coin is 27.22 grams. How much greater is the mass of the second coin than the first? Show your reasoning.

(From Unit 3, Lesson 15.)

6. One micrometer is a millionth of a meter. A certain spider web is 4 micrometers thick. A fiber in a shirt is 1 hundred-thousandth of a meter thick.

a. Which is wider, the spider web or the fiber? Explain your reasoning.

b. How many meters wider?

(From Unit 3, Lesson 15.)