Activity Set 6.1 Exercises and Activities: Problems # 2, 3   (18/18)

Directions: Write your answers in complete sentences, using proper grammar, spelling, and punctuation.

Understanding	Accuracy	Communication	Presentation	Total
2	2	2	2	8

2. School Classroom: Elementary students learn that one or more zeros can be placed at the end of a decimal without changing its value, but they usually do not understand why. Use Decimal Squares to illustrate .3 = .30 = .300 and write an explanation involving the use of additional zeros that would make sense to students. Copy Blank Decimal Squares from the companion website.

Understanding	Accuracy	Communication	Presentation	Total
2	a) 2 b) 2	2	2	10

3. School Classroom: The Elementary School Text page at the beginning of this section (copied below) shows four models for illustrating the decimal 1.65.
    a. Using the three models (1) *Money*, (2) *Decimal Model*, and (3) *Base-Ten Blocks*, illustrate and explain how you would use each model to help an elementary school student see that 2.3 > 2.29.

b. Explain how you would relate each model in part a to the *Place-Value Chart* model also shown on the school page.

3-1 Representing Decimals

▷ MINI Lab

The models below show some ways to represent the decimal 1.65.

Place-Value Chart

1,000	100	10	1	0.1	0.01	0.001
thousands	hundreds	tens	ones	tenths	hundredths	thousandths
O	O	O	1 •	6	5	O

Money

1 dollar   6 dimes   5 pennies

Decimal Model

one   65 hundredths

Base-Ten Blocks
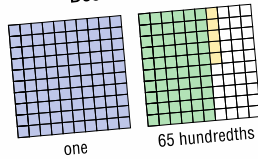
1 one   6 tenths   5 hundredths
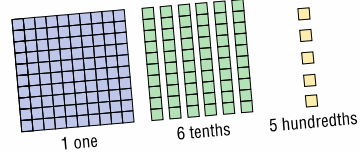
Model each decimal using a place-value chart, money, a decimal model, and base-ten blocks.

1. 1.56   2. 0.85   3. 0.08   4. $2.25

1–4. See Ch. 3 Answer Appendix.

Decimals, like whole numbers, are based on the number ten. In a place-value chart, the place to the right of the ones place has a value of one tenth. The next place has a value of one hundredth. Numbers that have digits in the tenths place and beyond are called **decimals**.

Place-Value Chart

1,000	100	10	1	0.1	0.01	0.001	0.0001
thousands	hundreds	tens	ones	tenths	hundredths	thousandths	ten-thousandths
O	O	O	1 •	6	5	O	O

whole number   decimal point   less than one