For the second option, we have

$$\frac{\$117}{30 \text{ index cards}} = \frac{\$1.17 \div 30}{30 \text{ index cards} \div 30}$$
$$\approx \frac{\$0.04}{1 \text{ index card}} \qquad \text{Round to the nearest hundredth,}$$

or approximately \$0.04 per index card.

Since \$0.03 is the lower of the two unit prices, the better buy is \$4.05 for 150 index cards.

4.R.3 Exercises

Concept Check

True/False. Determine whether each statement is true or false. If a statement is false, explain how it can be changed so the statement will be true. (**Note:** There may be more than one acceptable change.)

1. The decimal points should be aligned vertically when multiplying decimal numbers.

2. When multiplying decimal numbers, the answer should have the same number of decimal places as the total number of decimal places in the numbers being multiplied.

3. Multiplying by 100 requires that the decimal point be moved 100 places to the right.

4. Moving the decimal point in a divisor requires that the decimal point also be moved in the dividend.

Practice

Multiply.

5. Multiply $(5.6)(-0.02)$

6. Multiply $10(-45.6)$

7. Divide $-1.62 \div 9$

8. Divide $\frac{167}{10}$

Applications

Solve.

9. To buy a car, you can pay $2036.50 in cash, or you can put down $400 and make 18 monthly payments of $104.30. How much would you save by paying cash?

10. A professor has graded a test of five students, and their scores were 76.4, 100, 84.7, 10.2, and 68.3. What is the average of these five scores?

Writing & Thinking

11. In your own words, discuss the similarities and differences between multiplication with whole numbers and multiplication with decimal numbers.