

Name

Section

Date

### Modeling with expressions

Identify the terms and the coefficients of the expressions:

1.  $-20 + 5p - 7z$

2.  $8x - 20y - 10$

3. Erin is buying produce at a store. She buys  $c$  cucumbers at \$0.99 each and  $a$  apples at \$0.79 each. What does the expression  $0.99c + 0.79a$  represent?

Write an algebraic expression to model the given context. Give your answer in simplest form.

4. The price  $s$  of a pair of shoes plus 5% sales tax
5. The price  $h$  of a recently bought house plus 10% property tax
6. The total cost of two notebooks that cost  $x$  dollars each and a pen that costs \$3.50
7. The total cost of 6 pens and 3 folders. A folder costs \$1.15 more than a pen.
8. Consider the new expression that is obtained by simplifying  $8(x - 1) + 15$ . Select True or False for each statement.

- |   |      |       |
|---|------|-------|
| A. The new expression has 3 terms.                    | True | False |
| B. The coefficient of $x$ in the new expression is 8, | True | False |
| C. The constant in the new expression is 14.          | True | False |