

LESSON 27 ANSWERS

1. a. $0.1x$ = amount from dimes
 $0.05y$ = amount from nickels
Total amount = 1.80, so $0.1x + 0.05y = 1.80$.
b. When $x = 15$, $y = 6$. She has 6 nickels.
2. a. $5x$ = amount from fives
 $10y$ = amount from tens
Total amount = 80, so $5x + 10y = 80$.
b. When $x = 8$, $y = 4$. She has 4 tens.
3. a. $2x$ = points from multiple-choice questions
 $5y$ = points from short-answer questions
Total points = 100, so $2x + 5y = 100$.
b. When $y = 6$, $x = 35$. There are 35 2-point questions.
4. a. $5x$ = cost of popcorn
 $4y$ = cost of sodas
Total cost = 45, so $5x + 4y = 45$.
b. When $x = 6.2$, $y = 3.5$. Sodas cost \$3.50 each.
5. a. $20x$ = amount earned from selling muffins
 $46y$ = amount earned from selling cookies
Total amount earned = 113, so $20x + 46y = 113$.
b. When $y = 1.5$, $x = 2.2$. Muffins cost \$2.20 each.
6. a. $7x$ = cost of adult tickets
 $5y$ = cost of child tickets
Total cost = 81, so $7x + 5y = 81$.
b. When $x = 8$, $y = 5$. Child tickets cost \$5 each.
7. a. $4x$ = cost of flour
 $6.5y$ = cost of sugar
Total cost = 55, so $4x + 6.5y = 55$.
b. When $x = 4$, $y = 6$. He can buy 6 bags of sugar.
8. a. $4x$ = number of seats from 4-seat tables
 $8y$ = number of seats from 8-seat tables
Total number of seats = 96, so $4x + 8y = 96$.
b. When $y = 6$, $x = 12$. 12 tables seat 4 people.