

UNIT
2

Ratios and Proportional Relationships

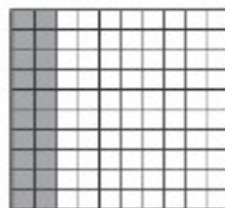
Unit Test: B

- A shopper bought a 12-pound bag of oranges for \$18.75. What was the unit price?
 A \$0.64 C \$1.73
 B \$1.56 D \$6.40
- The table shows a person saving money at a constant rate.

Weeks	2	4	6	8
Total Savings (\$)	60	120	180	240

- How much will this person save in 70 days?
- A \$30 C \$140
 B \$70 D \$300
- A student reads at a rate of 16 pages per day. Which ordered pair would be on a graph of this relationship?
 A (1.5, 26) C (5.5, 88)
 B (2.25, 30) D (7.25, 110)
 - Denise bought 5.2 pounds of rice for \$5.29. Using the unit rate, how much would 2 pounds of rice cost?
 A \$1.02 C \$2.04
 B \$1.29 D \$6.31
 - What is the percent of increase for a population that changed from 438,000 to 561,000?
 A 21.9% C 35.6%
 B 28.1% D 45.6%
 - A merchant buys a television for \$125 and sells it for a retail price of \$200. What is the markup?
 A 37.5% C 62.5%
 B 60% D 160%

- \$12,000 is invested for 4 years at a simple interest rate of 1.5%. How much does the investment earn?
 A \$180 C \$1,800
 B \$720 D \$7,200
- A dime is what percent of a dollar?
 A 1% C 100%
 B 10% D 1.10%
- When you find less than 100% of a number, how does your answer relate to the original number?
 A The numbers are equal.
 B It is less than the original number.
 C It is greater than the original number.
 D There is no relationship.
- The relation of 20 squares to 100 squares can be expressed in many ways. Which of the following is not a way to express the relationship?



- A $\frac{2}{10}$ C 0.02
 B 20% D 0.2

MODULE
4**Rates and Proportionality***Module Quiz: D*

1. A student used the complex fraction below to find a unit rate.

$$\frac{340 \text{ pages}}{\frac{3}{4} \text{ hour}}$$

Which quotient equals the fraction?

- A $\frac{3}{4} \div 340$
- B $\frac{4}{3} \div 340$
- C $340 \div \frac{3}{4}$
2. Which speed is the fastest?
- A 4 miles in $\frac{1}{3}$ hour
- B $\frac{1}{3}$ mile in 4 hours
- C $\frac{1}{2}$ mile in 3 hours
3. If 4.5 pounds of cherries cost \$10, what is the unit price?
- A \$0.22 per pound
- B \$0.45 per pound
- C \$2.22 per pound
4. Which table shows a constant rate of change?

A

Hours	2	7	14
Earnings (\$)	40	60	80

B

Hours	2	7	14
Earnings (\$)	40	140	280

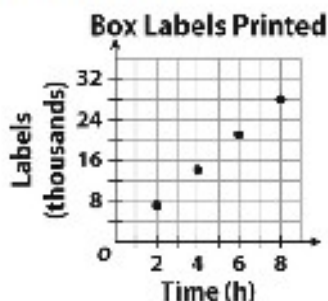
C

Hours	2	7	14
Earnings (\$)	40	70	140

5. A student studies the same amount of time each day for a test. In 4 days, she studied 60 minutes. Which equation shows this relationship? Let x = the number of days.

- A $y = 4x$
- B $y = 15x$
- C $y = 60x$

Use the graph for 6–7.



6. Draw a line through the points. How many labels are printed in 10 hours?
- A 24
- B 35
- C 40
7. Which term best describes the relationship between time and number of labels printed?
- A double
- B decreasing
- C proportional
8. Which of these is not an integer?
- A $\frac{6}{3}$
- B $\frac{3}{6}$
- C $\frac{6}{2}$

UNIT
3
Expressions, Equations, and Inequalities
Unit Test: D

1. Which equation matches the relationship shown in the table?

<i>r</i>	0	1	2
<i>s</i>	1.5	3.5	5.5

- A $s = r + 1.5$
 B $s = 2r + 1.5$
 C $s = 1.5r$
2. Which value of x satisfies the equation below?

$$2x + 10 = 50$$

- A 10 C 30
 B 20
3. The equation below represents the amount y that Kevin earns by working at a bakery for x hours, plus a holiday bonus.

$$y = 9x + 200$$

What is Kevin's hourly rate?

- A \$9 C \$200
 B \$18
4. Denise has \$250 in her checking account. Each time she buys a bottle of water, she spends \$2. If Denise buys x bottles of water, how much money will remain in her account?

- A $250 - 2x$
 B $2 - 250x$
 C $250 + 2x$
5. What is the solution to the inequality below?

$$x + 2 < 5$$

- A $x < 3$
 B $x > 3$
 C $x = 3$
6. If $5x + 15 = 45$, what is the value of x ?
- A 5 C 15
 B 6

7. Which table represents the same linear relationship as $y = x + 3$?

A

<i>x</i>	0	2	4
<i>y</i>	3	6	5

B

<i>x</i>	0	2	4
<i>y</i>	3	6	9

C

<i>x</i>	0	2	4
<i>y</i>	3	5	7

8. Which of the following inequalities has the graphed solution below?



- A $x < 3$
 B $x > 3$
 C $x + 1 > 3$
9. Which of the following equations has $x = 4$ as the solution?
- A $2x = 8$
 B $3x = 9$
 C $4x = 20$
10. Adrian currently has \$500 in his savings account. He saves \$10 per month. He saves the same amount each month and does not take any money out of the account. In how many months will Adrian have \$700?
- A 20
 B 50
 C 70
11. Damien earns money walking dogs. He charges \$4.50 per walk. How many times does he need to walk dogs to earn \$45?
- A 5
 B 9
 C 10