

Name: Key

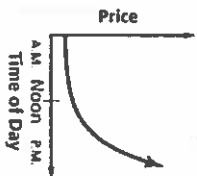
Unit 1 Review

- B 1. Which of the following is n^1 similar to output?
 A y-values
 B Domain
 C Both A & B
 D range

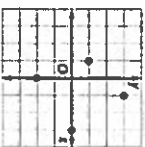
- B 2. Find the solution of $x + 4 = 7$ if the replacement set is $\{1, 2, 3, 4, 5\}$.
 A 1
 B 3
 C 4
 D 2

- H 3. A car rental company charges a rental fee of \$20 per day in addition to a charge of \$0.30 per mile driven. How much does it cost to rent a car for a day and drive it 25 miles?
 F \$45.30
 G \$20.30
 H \$27.50
 J \$26.00

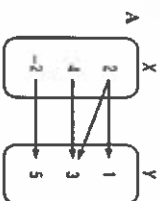
- C 4. Which statement best describes the graph of the price of one share of a company's stock shown below?
 A The price increased more in the morning than in the afternoon.
 B The price decreased more in the morning than in the afternoon.
 C The price increased more in the afternoon than in the morning.
 D The price decreased more in the afternoon than in the morning.



- F 5. What is the domain of the relation?
 F $\{-1, 0, 1, 3\}$
 G $\{-2, 0, 1, 3\}$
 H $\{-2, -1, 0, 1, 2, 3\}$
 J $\{0, 1, 2, 3\}$



- C 6. Determine which relation is a function.



B

| | | | | |
|---|----|---|---|---|
| x | 3 | 4 | 4 | 5 |
| y | -1 | 2 | 3 | 4 |

C $y = \frac{1}{3}x + 2$

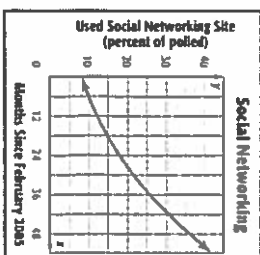
D $\{(3, 0), (-2, -2), (7, -2), (-2, 0)\}$

- S 7. If $h(r) = \frac{2}{3}r - 6$, what is the value of $h(-9)$?
 F 12
 G 0
 H $-\frac{6}{5}$
 J -12

For Questions 8 and 9, use the graph.

- B 8. Interpret the y-intercept of the graph.
 A All those polled used a social networking site 8 months after February 2005.
 B About 8% of those polled used a social networking site in February 2005.
 C No one used a social networking site in February 2005.
 D There were 8 social networking sites in February 2005.

- G 9. Interpret the end behavior of the function in terms of social networking.
 F expected to decrease
 G expected to increase
 H expected to level off at 55%
 J expected to level off at 8%



10. Write an expression from the sentence: The sum of the square of a number and 34.

11. Evaluate $2^3((15 - 7)(4 + 2))$.

12. Solve $\frac{m+2}{5} - 7 = 1$

128

$n^2 + 34$

38

- B 13. Translate the following sentence into an equation.
 Twice a number m minus three equals the sum of m and five

- A $2(m - 3) = m + 5$
 B $2m - 3 = m + 5$
 C $2m - 3 = 5m$
 D $2(m - 3) = 5m$

C 14. Solve $\frac{3}{5}x = 15$.

A 9
 B 5
 C 25
 D 75

- H 15. Evaluate $|2b - 5| + 1$ if $b = 1$.
 F -2
 G 2
 H 4
 J -8

- S 16. Solve $5(g - 2) + g = 6(g - 4)$.
 F all numbers
 G 0
 H 2
 J 0

C 17. Solve $ax - 5 = b$ for a .

A $x(b + 5)$ B $\frac{b - 5}{x}$

C $\frac{b + 5}{x}$

D $x(b - 5)$

1.1 Variables and Expressions

1.8 Interpreting Graphs of Functions

F 18. In Death Valley, California, the highest ground temperature recorded was 94°C on July 15, 1972. In the formula $C = \frac{5}{9}(F - 32)$, C represents the temperature in degrees Celsius and F represents the temperature in degrees Fahrenheit. To the nearest degree, what is the highest ground temperature in Death Valley in Fahrenheit?

F 201°F

G 84°F

H 34°F

J 137°F

1.2 Order of Operations

2.1 Writing Equations

19. A container company wants to make a cylindrical can with a volume of 1188 cubic inches. The formula $V = \pi r^2 h$ represents the volume of a cylinder. In this formula, V represents the volume, r represents the radius of the cylinder's base, and h represents the height of the cylinder. Solve for h . What height should the company make the can if the radius of the base must be 6 inches?

$$h = \frac{V}{\pi r^2}$$

$$10.50 \text{ inches}$$

1.5 Equations

2.3 Solving Multi-Step Equations

1.6 Relations

2.4 Solving Equations with Variables on Each Side

20. Translate the following equation into a verbal sentence. $3(x + y) = 2y - x$

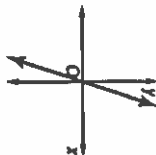
Three times the quantity x plus y is equal to two times y decreased by x .

1.7 Functions

2.8 Literal Equations

D 21. Which of the following graphs is not continuous?

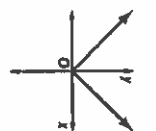
A)



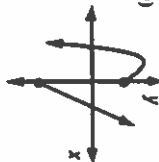
B)



C)



D)



E)

