

CRCT Quiz #10

Name: _____

Date: _____

1. The expression $x^2 - 36y^2$ is equivalent to

- A. $(x - 6y)(x - 6y)$ B. $(x - 18y)(x - 18y)$
 C. $(x + 6y)(x - 6y)$ D. $(x + 18y)(x - 18y)$

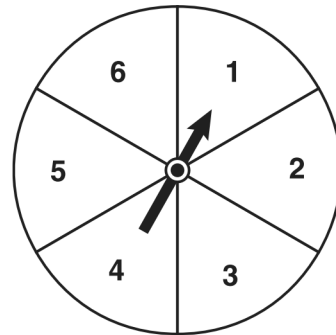
2. The legs of an isosceles right triangle each measure 10 inches. What is the length of the hypotenuse of this triangle, to the *nearest tenth of an inch*?

- A. 6.3 B. 7.1 C. 14.1 D. 17.1

3. The expression $\frac{12w^9y^3}{-3w^3y^3}$ is equivalent to

- A. $-4w^6$ B. $-4w^3y$
 C. $9w^6$ D. $9w^3y$

4. The spinner shown in the diagram below is divided into six equal sections.



Which outcome is *least* likely to occur on a single spin?

- A. an odd number
 B. a prime number
 C. a perfect square
 D. a number divisible by 2

5. What is $3\sqrt{250}$ expressed in simplest radical form?

- A. $5\sqrt{10}$ B. $8\sqrt{10}$
 C. $15\sqrt{10}$ D. $75\sqrt{10}$

6. What is the slope of the line passing through the points $(-2, 4)$ and $(3, 6)$?

- A. $-\frac{5}{2}$ B. $-\frac{2}{5}$ C. $\frac{2}{5}$ D. $\frac{5}{2}$

CRCT Quiz #10

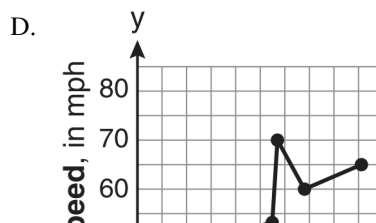
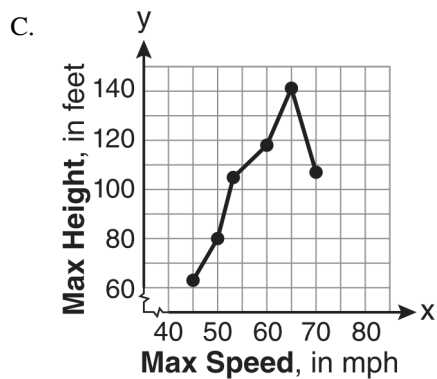
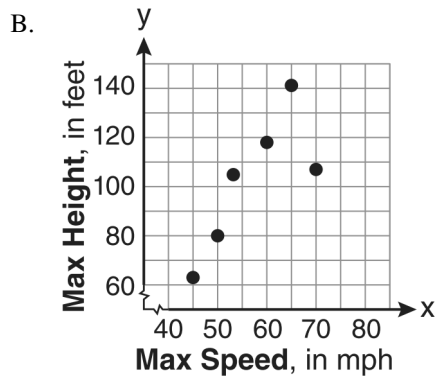
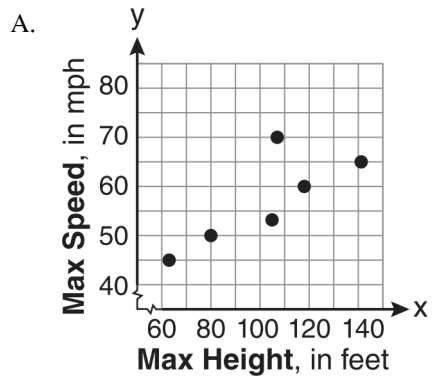
7. Which equation represents a line parallel to the y -axis?

- A. $y = x$ B. $y = 3$
 C. $x = -y$ D. $x = -4$

8. The maximum height and speed of various roller coasters in North America are shown in the table below.

Maximum Speed, in mph, (x)	45	50	54	60	65	70
Maximum Height, in feet, (y)	63	80	105	118	141	107

Which graph represents a correct scatter plot of the data?



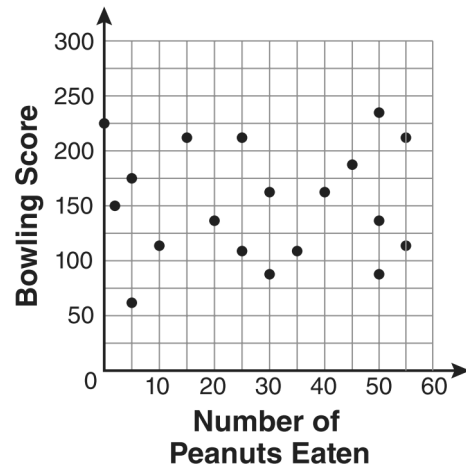
CRCT Quiz #10

9. Which verbal expression can be represented by $2(x - 5)$?
- 5 less than 2 times x
 - 2 multiplied by x less than 5
 - twice the difference of x and 5
 - the product of 2 and x , decreased by 5
10. An example of an algebraic expression is
- $y = mx + b$
 - $3x + 4y - 7$
 - $2x + 3y \leq 18$
 - $(x + y)(x - y) = 25$
11. Michael is 25 years younger than his father. The sum of their ages is 53. What is Michael's age?
- 14
 - 25
 - 28
 - 39
12. What is the product of (6×10^3) , (4.6×10^5) , and (2×10^{-2}) expressed in scientific notation?
- 55.2×10^6
 - 5.52×10^7
 - 55.2×10^7
 - 5.52×10^{10}
13. When $5x + 4y$ is subtracted from $5x - 4y$, the difference is
- 0
 - $10x$
 - $8y$
 - $-8y$

14. Chelsea has \$45 to spend at the fair. She spends \$20 on admission and \$15 on snacks. She wants to play a game that costs \$0.65 per game. Write an inequality to find the maximum number of times, x , Chelsea can play the game.

Using this inequality, determine the maximum number of times she can play the game.

15. The scatter plot below represents the relationship between the number of peanuts a student eats and the student's bowling score.



Which conclusion about the scatter plot is valid?

- There is almost no relationship between eating peanuts and bowling score.
- Students who eat more peanuts have higher bowling scores.
- Students who eat more peanuts have lower bowling scores.
- No bowlers eat peanuts.

CRCT Quiz #10

16. The ninth grade class at a local high school needs to purchase a park permit for \$250.00 for their upcoming class picnic. Each ninth grader attending the picnic pays \$0.75. Each guest pays \$1.25. If 200 ninth graders attend the picnic, which inequality can be used to determine the number of guests, x , needed to cover the cost of the permit?
- A. $0.75x - (1.25)(200) \geq 250.00$
 B. $0.75x + (1.25)(200) \geq 250.00$
 C. $(0.75)(200) - 1.25x \geq 250.00$
 D. $(0.75)(200) + 1.25x \geq 250.00$
17. Which equation represents the line that passes through the point $(1, 5)$ and has a slope of -2 ?
- A. $y = -2x + 7$ B. $y = -2x + 11$
 C. $y = 2x - 9$ D. $y = 2x + 3$
18. What is the solution of the system of equations $2x - 5y = 11$ and $-2x + 3y = -9$?
- A. $(-3, -1)$ B. $(-1, 3)$
 C. $(3, -1)$ D. $(3, 1)$
19. Which algebraic expression represents 15 less than x divided by 9?
- A. $\frac{x}{9} - 15$ B. $9x - 15$
 C. $15 - \frac{x}{9}$ D. $15 - 9x$
20. What is the value of the expression $-3x^2y + 4x$ when $x = -4$ and $y = 2$?
- A. -112 B. -80 C. 80 D. 272
21. Which expression is equivalent to $-3x(x - 4) - 2x(x + 3)$?
- A. $-x^2 - 1$ B. $-x^2 + 18x$
 C. $-5x^2 - 6x$ D. $-5x^2 + 6x$
22. The length of a rectangle is 3 inches more than its width. The area of the rectangle is 40 square inches. What is the length, in inches, of the rectangle?
- A. 5 B. 8 C. 8.5 D. 11.5
23. Ben has four more than twice as many CDs as Jake. If they have a total of 31 CDs, how many CDs does Jake have?
- A. 9 B. 13 C. 14 D. 22
24. What is the solution of the inequality $-6x - 17 \geq 8x + 25$?
- A. $x \geq 3$ B. $x \leq 3$
 C. $x \geq -3$ D. $x \leq -3$
25. Express $\frac{16\sqrt{21}}{2\sqrt{7}} - 5\sqrt{12}$ in simplest radical form.

CRCT Quiz #10 01/21/2013

1.
Answer: C
2.
Answer: C
3.
Answer: A
4.
Answer: C
5.
Answer: C
6.
Answer: C
7.
Answer: D
8.
Answer: B
9.
Answer: C
10.
Answer: B
11.
Answer: A
12.
Answer: B
13.
Answer: D
14.
Answer: 15
15.
Answer: A
16.
Answer: D
17.
Answer: A
18.
Answer: C
19.
Answer: A
20.
Answer: A

21.
Answer: D
22.
Answer: B
23.
Answer: A
24.
Answer: D
25.
Answer: $-2\sqrt{3}$