CRCT Quiz #1

Name: _____ **Date:** _____

1. Jack bought 3 slices of cheese pizza and 4 slices of mushroom pizza for a total cost of $12.50. Grace bought 3 slices of cheese pizza and 2 slices of mushroom pizza for a total cost of $8.50. What is the cost of one slice of mushroom pizza?

   A. $1.50   B. $2.00   C. $3.00   D. $3.50

2. What is $2\sqrt{45}$ expressed in simplest radical form?

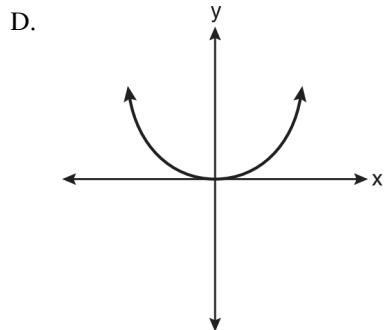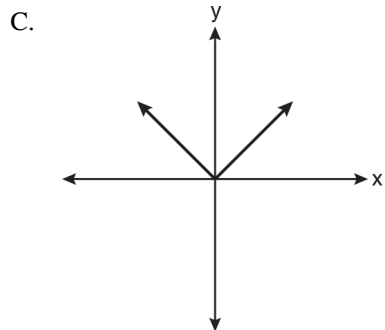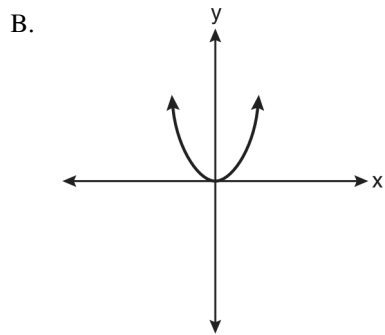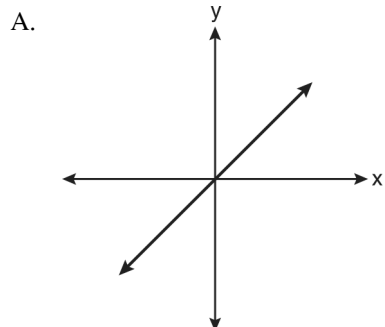   A. $3\sqrt{5}$ B. $5\sqrt{5}$ C. $6\sqrt{5}$ D. $18\sqrt{5}$

3. Lenny made a cube in technology class. Each edge measured 1.5 cm. What is the volume of the cube in cubic centimeters?

   A. 2.25   B. 3.375   C. 9.0   D. 13.5

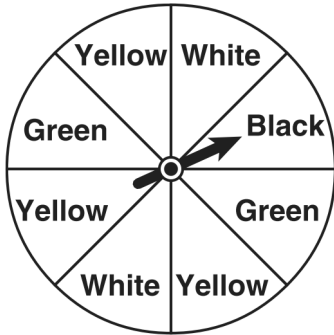4. Which ordered pair is a solution to the system of equations $y = x$ and $y = x^2 - 2$?

   A. $(-2, -2)$ B. $(-1, 1)$

   C. $(0, 0)$ D. $(2, 2)$

5. Which graph represents a linear function?

   A.

   B.

   C.

   D.

CRCT Quiz #1

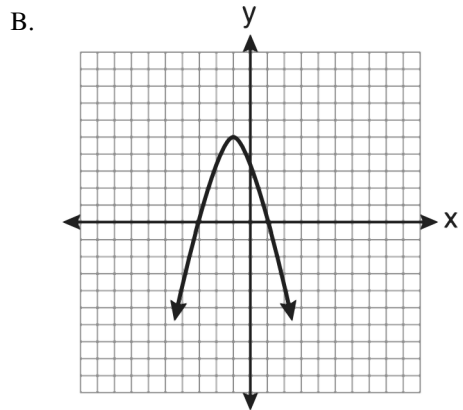6. A spinner is divided into eight equal regions as shown in the diagram below.

Which event is *most* likely to occur in one spin?

A. The arrow will land in a green or white area.

B. The arrow will land in a green or black area.

C. The arrow will land in a yellow or black area.
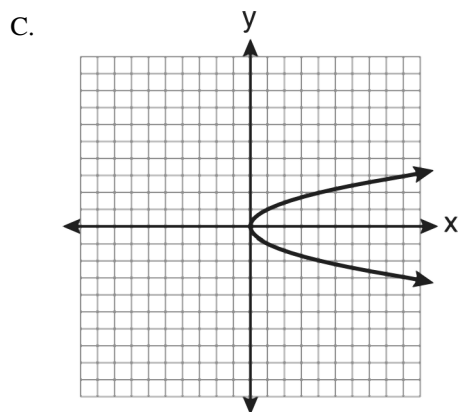
D. The arrow will land in a yellow or green area.
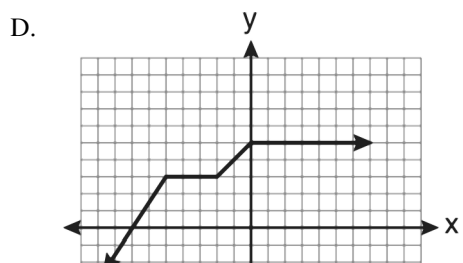
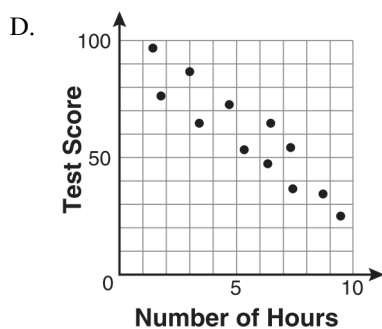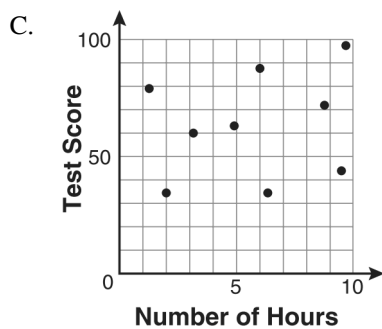7. Which graph does not represent a function?

A.

(1)

B.

(2)

C.

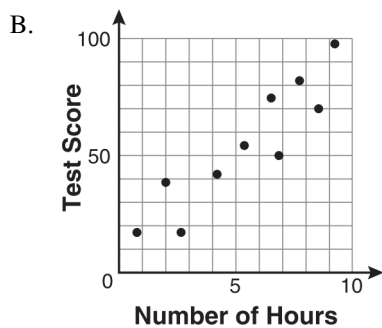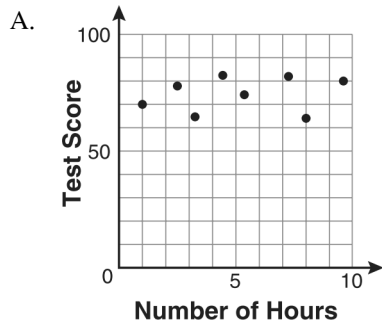(3)

D.
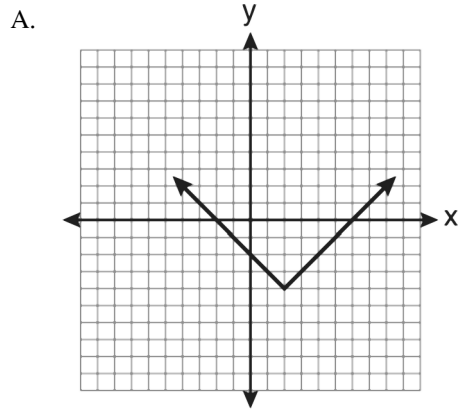
8. There is a negative correlation between the number of hours a student watches television and his or her social studies test score. Which scatter plot below displays this correlation?

A.

Number of Hours

B.

Number of Hours

C.

Number of Hours

D.

Number of Hours

9. Pam is playing with red and black marbles. The number of red marbles she has is three more than twice the number of black marbles she has. She has 42 marbles in all. How many red marbles does Pam have?

   A. 13   B. 15   C. 29   D. 33

10. What is half of 2^6?

   A. 1^3 B. 1^6 C. 2^3 D. 2^5

11. Which equation represents a line that is parallel to the line $y = -4x + 5$?

   A. $y = -4x + 3$ B. $y = -\frac{1}{4}x + 5$

   C. $y = \frac{1}{4}x + 3$ D. $y = 4x + 5$

12. What is the slope of the line that passes through the points $(-6, 1)$ and $(4, -4)$?

   A. -2 B. 2   C. $-\frac{1}{2}$ D. $\frac{1}{2}$

13. Students in a ninth grade class measured their heights, h, in centimeters. The height of the shortest student was 155 cm, and the height of the tallest student was 190 cm. Which inequality represents the range of heights?

   A. $155 < h < 190$ B. $155 \leq h \leq 190$

   C. $h \geq 155$ or $h \leq 190$ D. $h > 155$ or $h < 190$

14. Mr. Turner bought x boxes of pencils. Each box holds 25 pencils. He left 3 boxes of pencils at home and took the rest to school. Which expression represents the total number of pencils he took to school?

    A. $22x$ B. $25x - 3$

    C. $25 - 3x$ D. $25x - 75$

15. Don placed a ladder against the side of his house as shown in the diagram below.

    Ladder 20 ft

    19.5 ft

    x
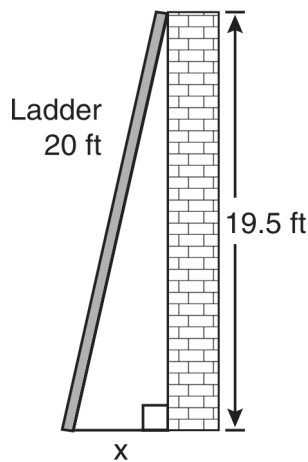
    Which equation could be used to find the distance, x, from the foot of the ladder to the base of the house?

    A. $x = 20 - 19.5$ B. $x = 20^2 - 19.5^2$

    C. $x = \sqrt{20^2 - 19.5^2}$ D. $x = \sqrt{20^2 + 19.5^2}$

16. What is $\dfrac{\sqrt{32}}{4}$ expressed in simplest radical form?

    A. $\sqrt{2}$ B. $4\sqrt{2}$ C. $\sqrt{8}$ D. $\dfrac{\sqrt{8}}{2}$

17. Tom drove 290 miles from his college to home and used 23.2 gallons of gasoline. His sister, Ann, drove 225 miles from her college to home and used 15 gallons of gasoline. Whose vehicle had better gas mileage? Justify your answer.

18. Maureen tracks the range of outdoor temperatures over three days. She records the following information.

    Day 1: $-20°F$ to $40°F$

    Day 2: $0°F$ to $50°F$

    Day 3: $-23°F$ to $45°F$
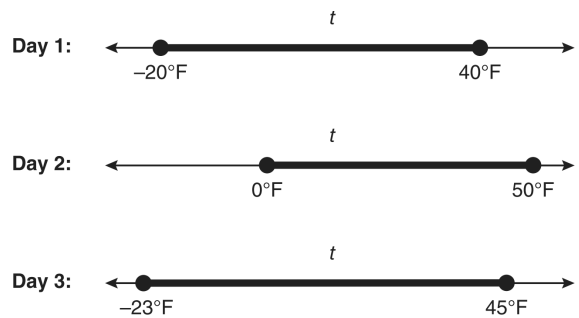
    Express the intersection of the three sets as an inequality in terms of temperature, t.

19. Peter begins his kindergarten year able to spell 10 words. He is going to learn to spell 2 new words every day.

    Write an inequality that can be used to determine how many days, d, it takes Peter to be able to spell *at least* 75 words.

    Use this inequality to determine the minimum number of whole days it will take for him to be able to spell *at least* 75 words.

20. A contractor needs 54 square feet of brick to construct a rectangular walkway. The length of the walkway is 15 feet more than the width.

    Write an equation that could be used to determine the dimensions of the walkway. Solve this equation to find the length and width, in feet, of the walkway.

CRCT Quiz #1   01/16/2013

1.
Answer: B

2.
Answer: C

3.
Answer: B

4.
Answer: D

5.
Answer: A

6.
Answer: D

7.
Answer: C

8.
Answer: D

9.
Answer: C

10.
Answer: D

11.
Answer: A

12.
Answer: C

13.
Answer: B

14.
Answer: D

15.
Answer: C

16.
Answer: A

17.
Answer: Ann's

18.
Answer: $0 \le t \le 40$

19.
Answer: $10 + 2d \ge 75$ and 33

20.
Answer: width = 3 and length = 18