CRCT Quiz #11

Name: _____ **Date:** _____

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

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

2. Timmy bought a skateboard and two helmets for a total of d dollars. If each helmet cost h dollars, the cost of the skateboard could be represented by

   A. $2dh$ B. $\frac{dh}{2}$

   C. $d - 2h$ D. $d - \frac{h}{2}$

3. Byron is 3 years older than Doug. The product of their ages is 40. How old is Doug?

   A. 10 B. 8 C. 5 D. 4

4. Three fair coins are tossed. What is the probability that two heads and one tail appear?

   A. $\frac{1}{8}$ B. $\frac{3}{8}$ C. $\frac{3}{6}$ D. $\frac{2}{3}$

5. What is the sum of $-3x^2 - 7x + 9$ and $-5x^2 + 6x - 4$?

   A. $-8x^2 - x + 5$ B. $-8x^4 - x + 5$

   C. $-8x^2 - 13x + 13$ D. $-8x^4 - 13x^2 + 13$

6. What is the slope of the line that passes through the points $(2, -3)$ and $(5, 1)$?

   A. $-\frac{2}{3}$ B. $\frac{2}{3}$ C. $-\frac{4}{3}$ D. $\frac{4}{3}$

7. The expression $\frac{(4x^3)^2}{2x}$ is equivalent to

   A. $4x^4$ B. $4x^5$ C. $8x^4$ D. $8x^5$

8. Which point lies on the graph represented by the equation $3y + 2x = 8$?

   A. $(-2, 7)$ B. $(0, 4)$

   C. $(2, 4)$ D. $(7, -2)$

9. Mr. Stanton asked his students to write an algebraic expression on a piece of paper. He chose four students to go to the board and write their expression.

   Robert wrote: $4(2x + 5) \geq 17$
   Meredith wrote: $3y - 7 + 11z$
   Steven wrote: $9w + 2 = 20$
   Cynthia wrote: $8 + 10 - 4 = 14$

   Which student wrote an algebraic expression?

   A. Robert B. Meredith

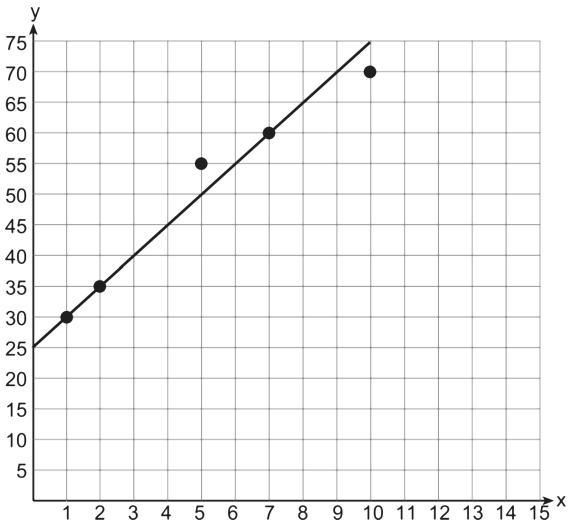
   C. Steven D. Cynthia

10. If $s = \dfrac{2x + t}{r}$, then x equals

A. $\dfrac{rs - t}{2}$ B. $\dfrac{rs + 1}{2}$

C. $2rs - t$ D. $rs - 2t$

11. A scatter plot was constructed on the graph below and a line of best fit was drawn.



What is the equation of this line of best fit?

A. $y = x + 5$ B. $y = x + 25$

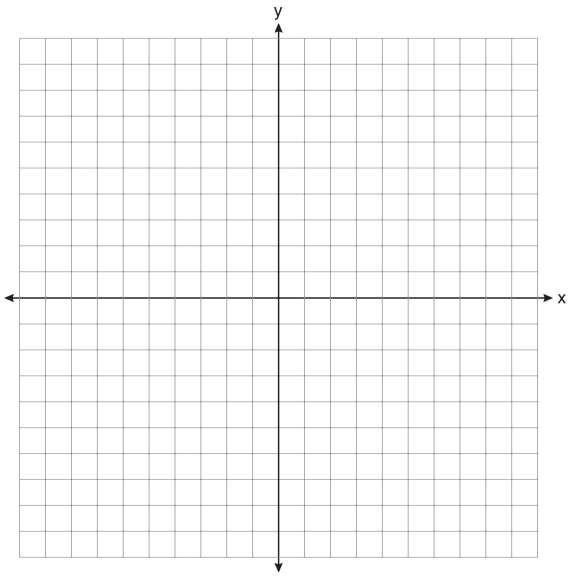
C. $y = 5x + 5$ D. $y = 5x + 25$

12. Solve algebraically for x: $2(x - 4) \geq \frac{1}{2}(5 - 3x)$

13. On the set of axes below, solve the following system of equations graphically. State the coordinates of the solution.

$$y = 4x - 1$$

$$2x + y = 5$$



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1.
Answer: C

2.
Answer: C

3.
Answer: C

4.
Answer: B

5.
Answer: A

6.
Answer: D

7.
Answer: D

8.
Answer: D

9.
Answer: B

10.
Answer: A

11.
Answer: D

12.
Answer: $x \geq 3$

13.
Answer: Correct graphs are drawn, and at least one is labeled, and $(1, 3)$ or $x = 1$, $y = 3$ is stated.