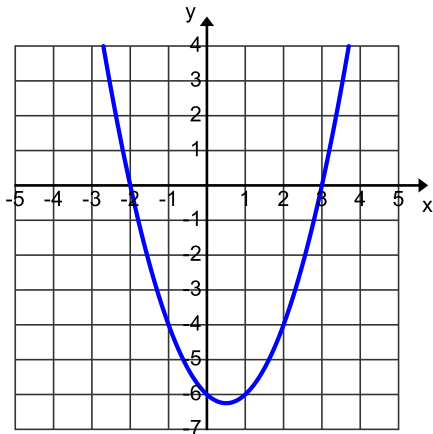


2014 SOL Quiz B Questions 1-20

- ___1. Look at the graphed function below.



Based on the zeros, which best represents the graphed function?

- A. $(x - 2)(x + 3)$ B. $(x + 2)(x - 3)$
C. $(x - 4)(2x - 6)$ D. $(2x - 1)(x - 2)$
- ___2. Cecil has \$100 and he goes and buys 4 cokes at c dollars each. Which expression represents the total amount of money, in dollars, that Cecil has left after buying these 4 cokes?
- A. $100 + 4c$ B. $4c - 100$
C. $100 - 4c$ D. $100(4c)$

- ___3. Which expression is equivalent to $\frac{20c^4d^6}{15c^3d^7}$?

A. $\frac{4c^7d^{13}}{3}$ B. $\frac{20c^2d}{15c}$ C. $\frac{4cd}{3}$ D. $\frac{4c}{3d}$

- ___4. Identify each expression that is a factor of this polynomial: $2x^2 + 8x - 24$

- I. $2x - 3$ II. 2 III. $x + 3$ IV. $x + 6$
- A. I, II, and IV B. II and IV
C. II, III, and IV D. II and III

___5. What is the value of the expression when $x = -7$ and $y = 8$?

$$x - y$$

- A. -15 B. -1 C. 1 D. 15

___6. What is the value of $\sqrt{44}$ in simplest radical form?

- A. $2\sqrt{11}$ B. $2\sqrt{22}$ C. $4\sqrt{11}$ D. $8\sqrt{22}$

___7. Which of the following binomials is a factor of $x^2 - 7x + 10$?

- A. $x + 2$ B. $x - 3$ C. $x - 4$ D. $x - 5$

___8. What is the value of the expression below when $x = \frac{1}{2}$

$$x^2 - \frac{1}{2}x + 2$$

- A. $\frac{1}{2}$ B. $\frac{1}{4}$ C. $\frac{1}{8}$ D. 2

___9. Which expression is equivalent to $(3x^{-4})^2 (2x^{-3})$?

- A. $\frac{18}{x^5}$ B. $\frac{18}{x^{11}}$ C. $18x^5$ D. $18x^{11}$

___10. Which polynomial is equivalent to $(8n^2 + 10n - 3) \div (2n + 3)$?

- A. $2n + 1$ B. $2n - 3$ C. $4n + 1$ D. $4n - 1$

___11. What is the value of this expression when $a = 4$ and $b = -2$?

$$-2\sqrt{a} + b^2$$

- A. 0 B. -8 C. 8 D. -4

___12. When $n > 0$, which expression is equivalent to $\sqrt{12a^3n^4}$ in simplest form?

- A. $2an\sqrt{3an}$ B. $2an^2\sqrt{3a}$ C. $4an\sqrt{n}$ D. $2an^3\sqrt{3n}$

___13. Look at the system of equations.

$$\begin{cases} y = -x + 2 \\ 3x + 3y = 6 \end{cases}$$

What is the value of x for the solution to this system of equations?

- A. 3 B. -4 C. 8 D. -10

___14. What value of p will make this equation true?

$$\frac{p-2}{3} = \frac{p+2}{4}$$

- A. 12 B. -12 C. 14 D. -14

___15. What is the value of this expression when $n = -4$? $-2|n+6|$

- A. -20 B. 20 C. 4 D. -4

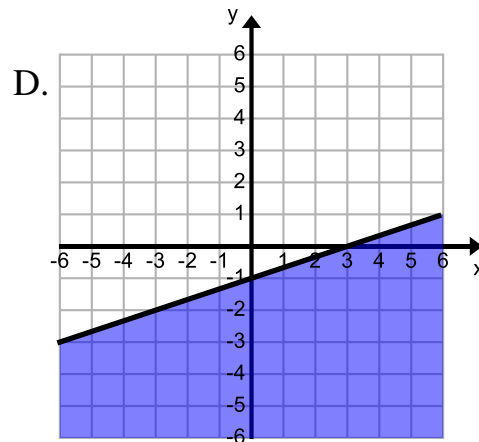
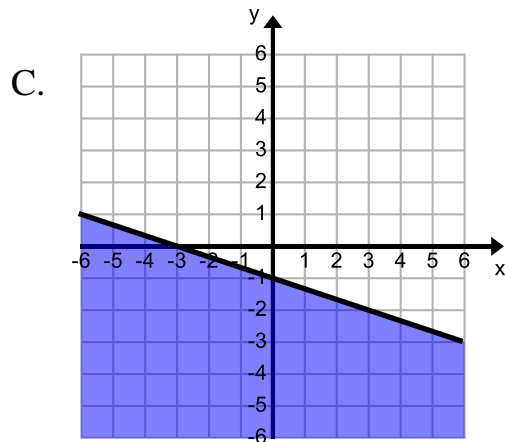
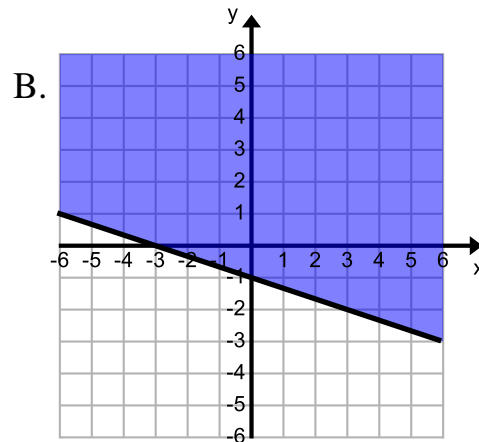
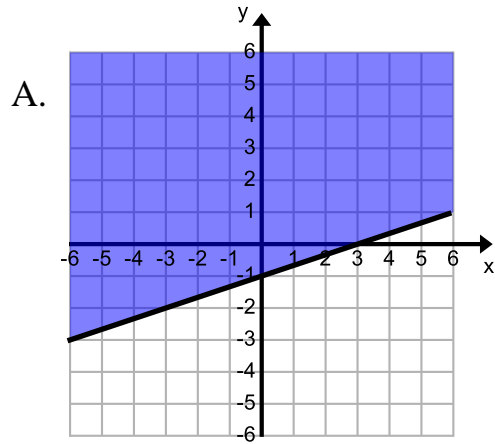
___16. What is the slope of the line represented by $\frac{1}{5}x - 2y = 10$

- A. $-\frac{1}{10}$ B. $-\frac{1}{2}$ C. $\frac{1}{10}$ D. -10

___17. Solve for x : $-4x + 6 < -2x - 10$

- A. $x > 8$ B. $x < 8$ C. $x > 2$ D. $x < 2$

___18. Which graph best models $y < \frac{1}{3}x - 1$?



___19. Which inequality represents all the solutions of $2(2x - 3) < 2(x + 1)$?

- A. $x < -2$ B. $x > -2$ C. $x < 4$ D. $x > 4$

___20. A total of 100 adults and children are at a movie theater. There are 6 more children than adults in the theater. If a represents the number of adults and b represents the number of children, which system of equations could be used to find the number of adults and the number of children in the theater?

A.
$$\begin{cases} a + b = 100 \\ a = 6b \end{cases}$$

B.
$$\begin{cases} a + b = 100 \\ a = b + 6 \end{cases}$$

C.
$$\begin{cases} a + b = 100 \\ b = a + 6 \end{cases}$$

D.
$$\begin{cases} a + b = 100 \\ a = \frac{b}{6} \end{cases}$$