

1. What is the greatest common factor of the terms of $36x^4 - 4xy$?

- A. $2x$
- B. $2x^4$
- C. $4x$
- D. $4x^4$

2. What is the complete factorization of $a^2 - 7a - 18$?

- A. $(a + 9)(a - 2)$
- B. $(a - 9)(a - 2)$
- C. $(a + 9)(a + 2)$
- D. $(a - 9)(a + 2)$

3. The bulletin board in Ms. Harper's classroom has an area of $x^2 - 16$ square feet. Which are possible dimensions of the bulletin board?

- A. $(x + 4)$ by $(x - 4)$
- B. $(x - 4)$ by $(x - 4)$
- C. $(x + 2)$ by $(x - 8)$
- D. $(x - 2)$ by $(x + 8)$

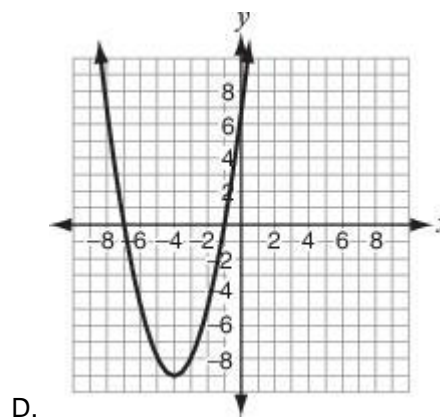
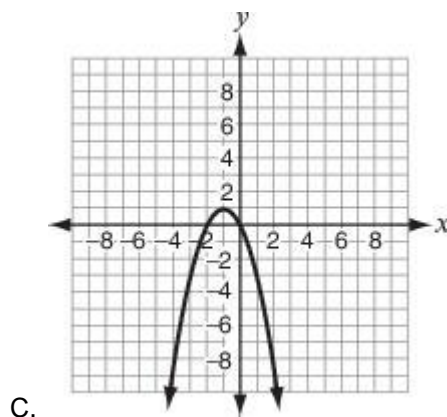
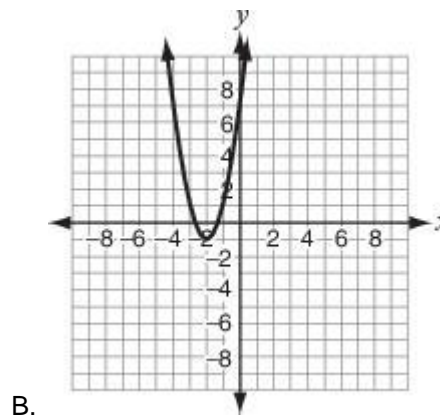
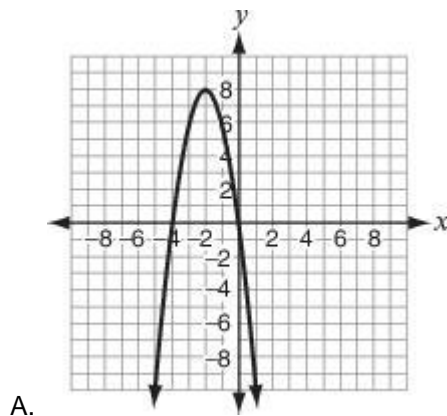
4. What is the factored form of $x^2 - 16x + 64$?

- A. $(x - 8)^2$
- B. $(x + 8)^2$
- C. $(x + 8)(x - 8)$
- D. $(x - 4)(x - 16)$

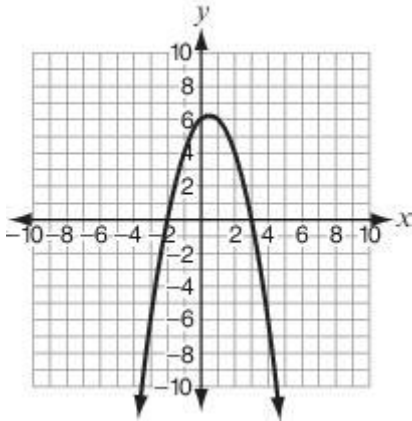
5. Factor: $2x^2 + 7x - 4$

- A. $(x - 1)(2x + 4)$
- B. $(x + 1)(2x - 4)$
- C. $(2x + 1)(x - 4)$
- D. $(2x - 1)(x + 4)$

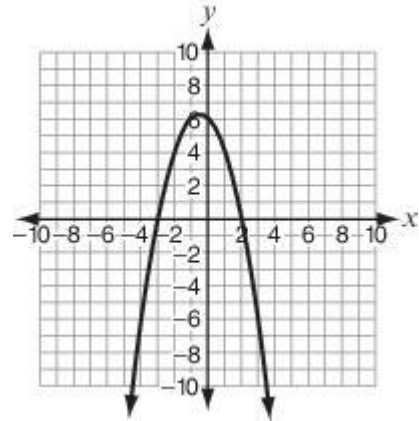
6. Mr. Henderson asked four students to graph the function $f(x) = x^2 + 8x + 7$. Which student graph is correct?



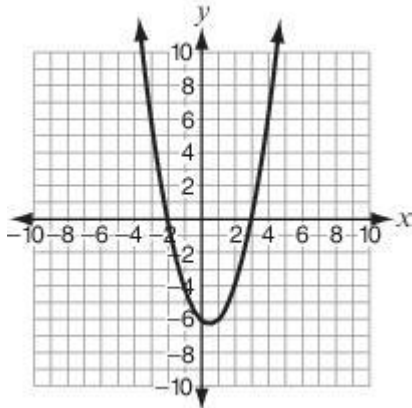
7. Which parabola represents the correct roots and vertex for the equation, $y = -x^2 + x + 6$?



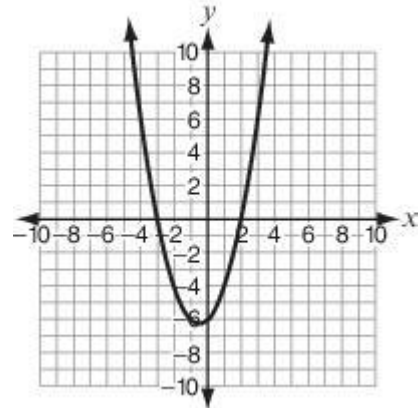
A.



B.

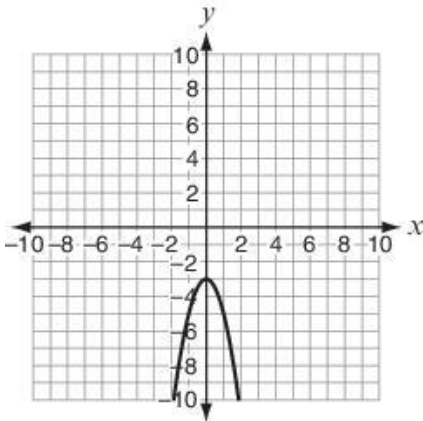


C.

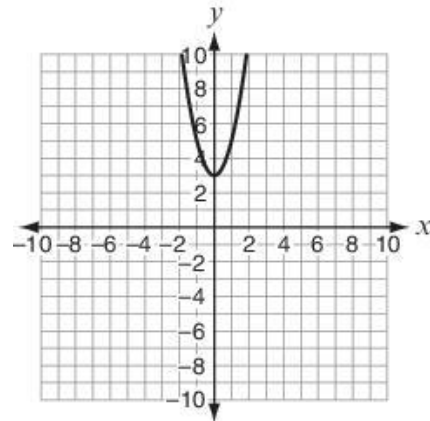


D.

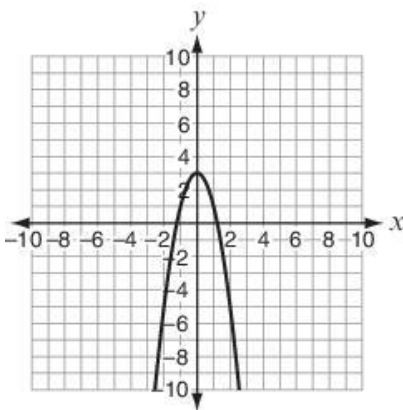
8. Which graph represents the equation $y = -2x^2 + 3$?



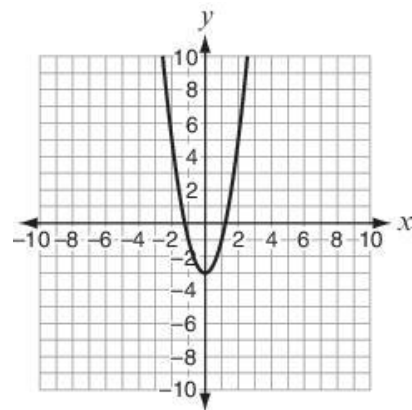
A.



B.

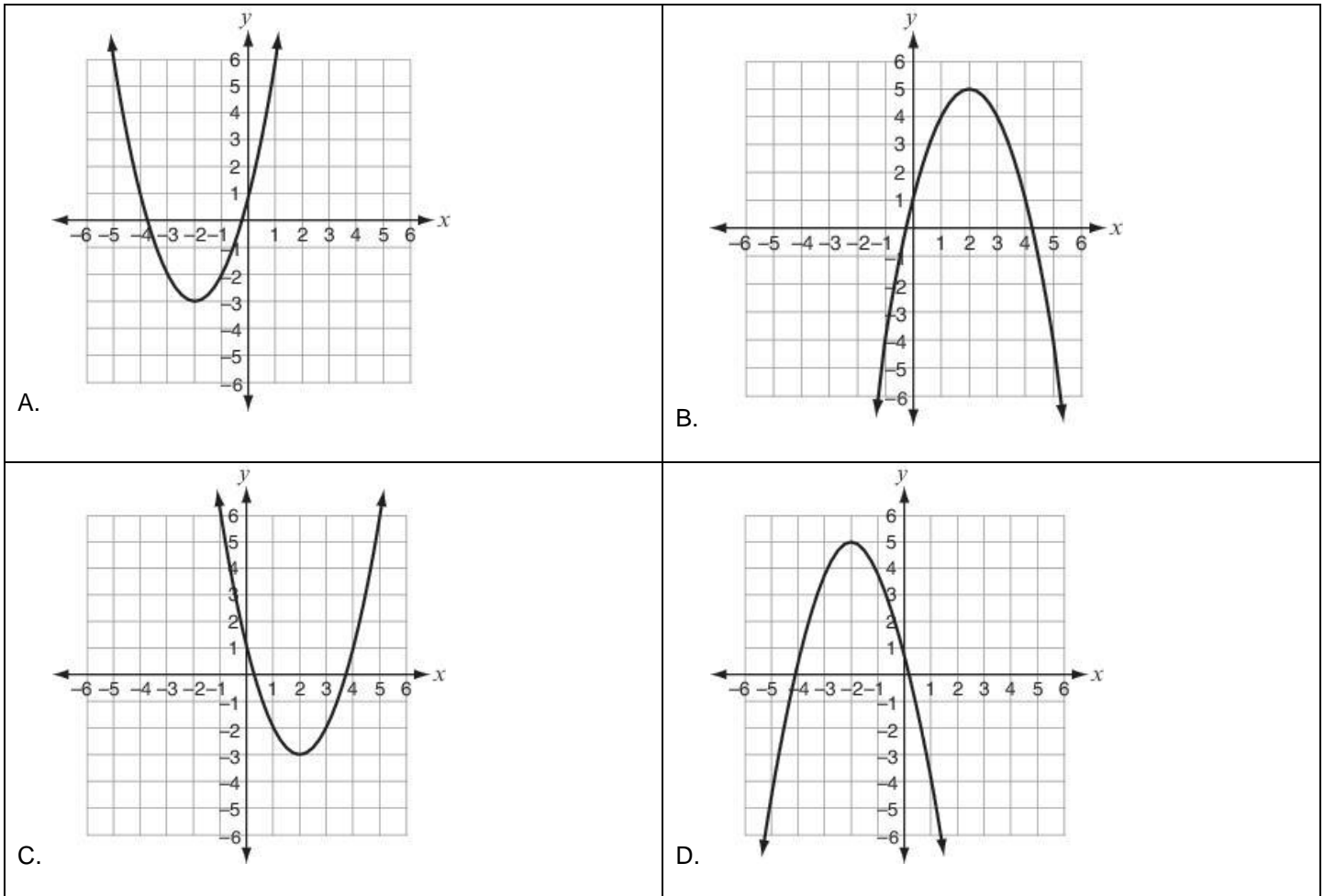


C.

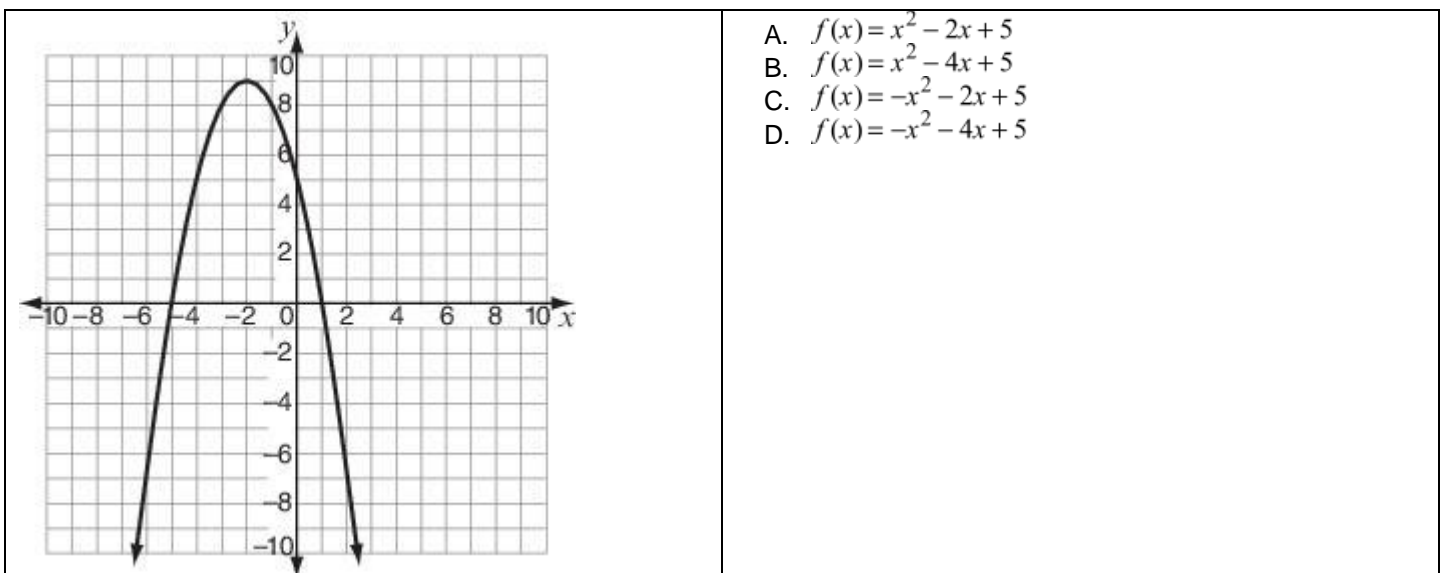


D.

9. Which graph represents the function $y = -x^2 - 4x + 1$?



10. A quadratic function is graphed below. Which quadratic function is represented in this graph?



11. What is the solution set of $x^2 = 25$?

- A. $\{5\}$
- B. $\{-5\}$
- C. $\{-5, 5\}$
- D. $\{\}$

12. What is the solution of $x^2 - 9 = 0$?

- A. 3 only
- B. -3 only
- C. 3 and -3
- D. 3 and 0

13. Which quadratic equation has 4 as its only root?

- A. $y = x^2 - 16$
- B. $y = x^2 + 16$
- C. $y = x^2 - 8x + 16$
- D. $y = x^2 + 8x + 16$

14. What is the sum of the zeros of the following equation?

$$x^2 + 3x - 18 = 0$$

- A. -14
- B. -3
- C. 3
- D. 7

15. Find the solutions to the quadratic equation.

$$x^2 + 3x = -2$$

- A. -2, -1
- B. -2, 1
- C. 2, -1
- D. 2, 1

Stop! You have finished this exam.