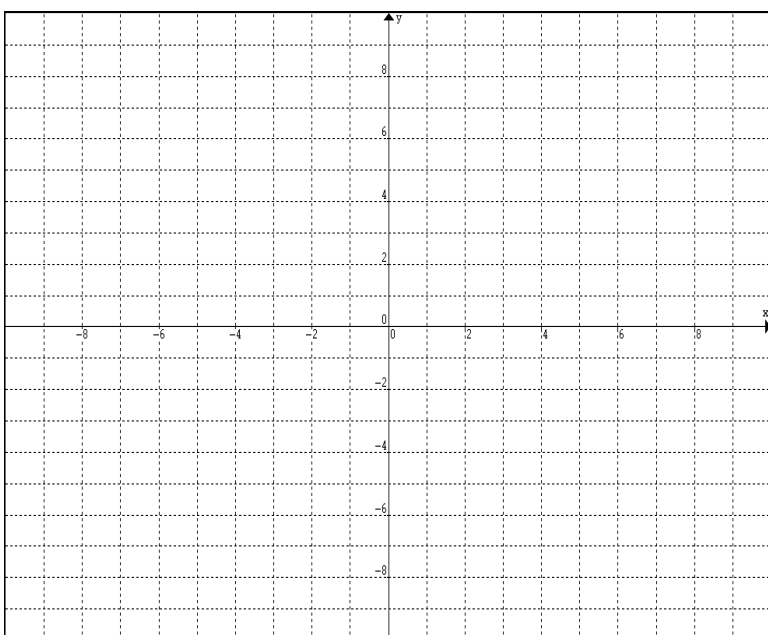# Graphing Quadratic Functions

1. $f(x) = x^2$

Vertex =
y-intercept : x-intercept:
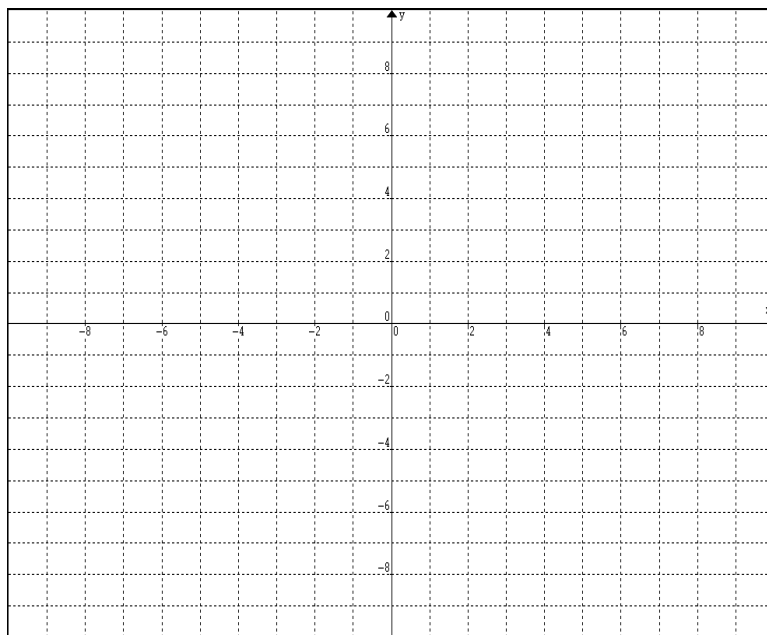
2. $f(x) = x^2 + 5$

Vertex =
y-intercept : x-intercept:
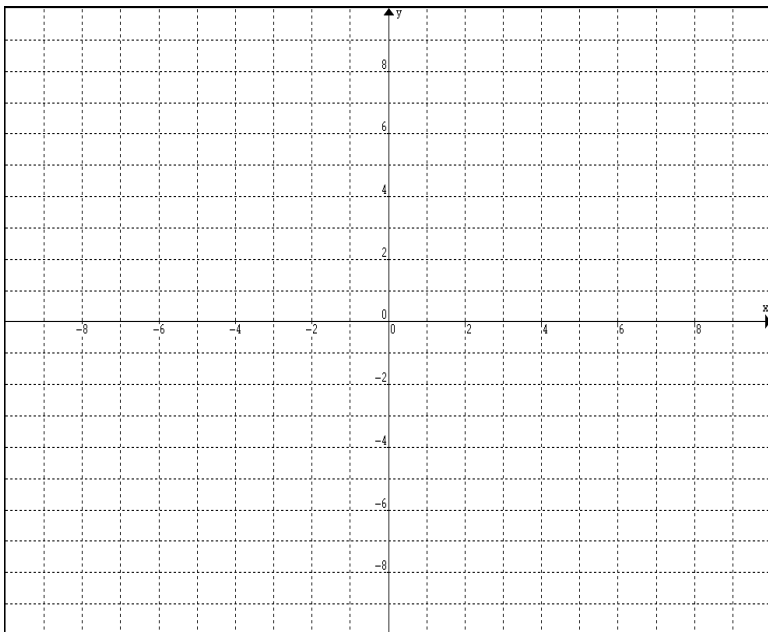
3. $f(x) = (x + 3)^2$

Vertex =
y-intercept : x-intercept:
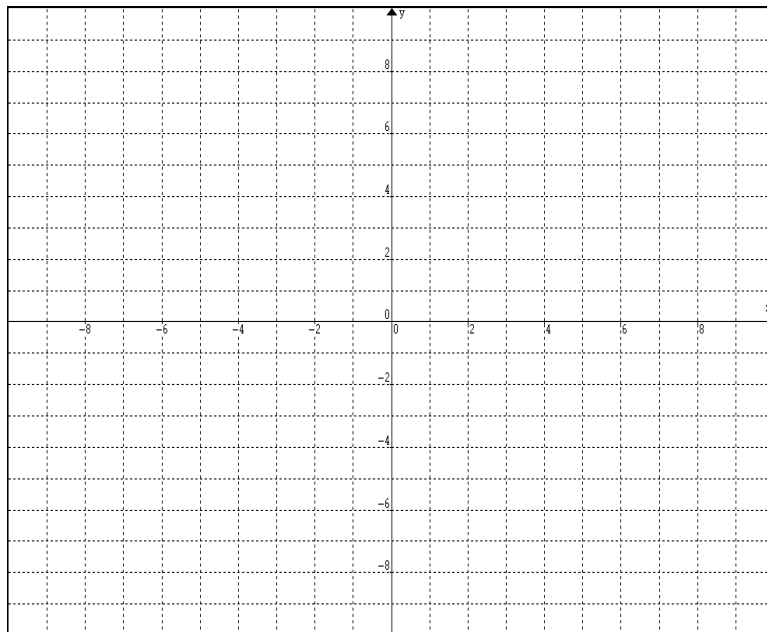
4. $f(x) = (x - 4)^2 - 3$
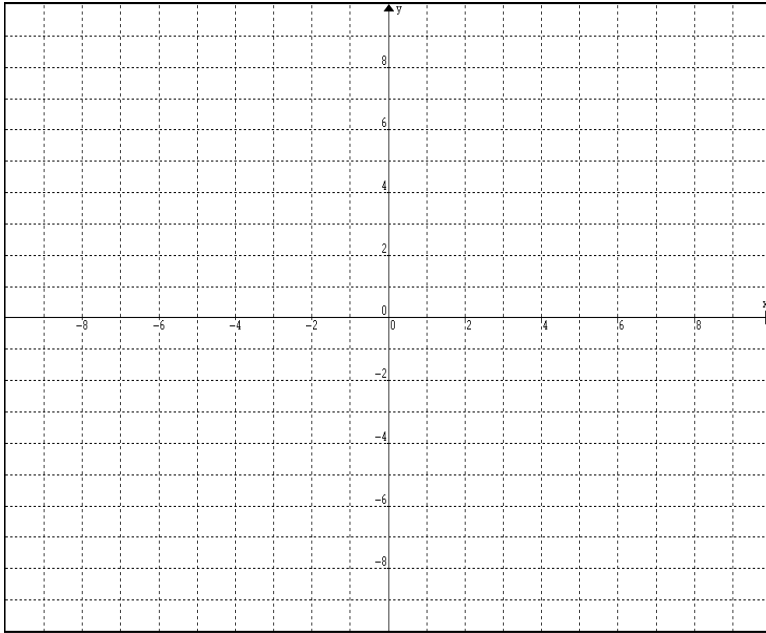
Vertex =
y-intercept : x-intercept:

5. $f(x) = -x^2$
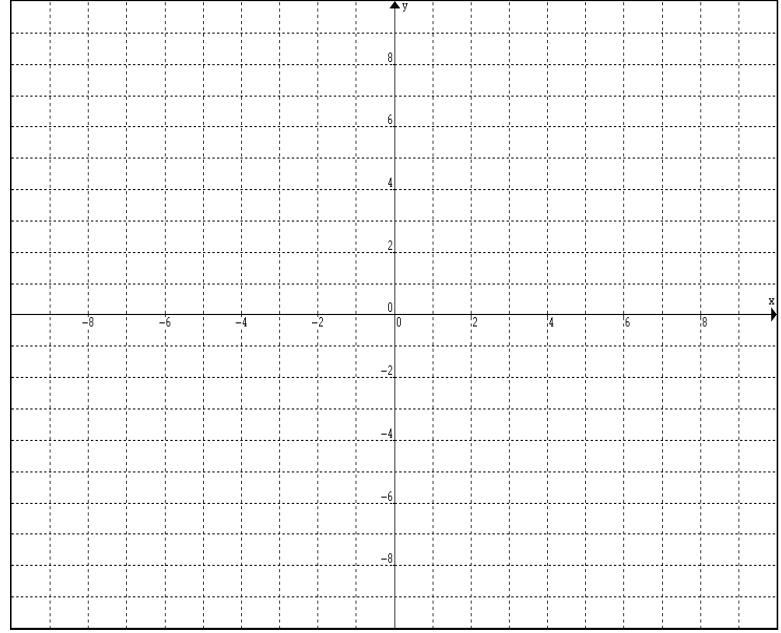
Vertex =
y-intercept : x-intercept:

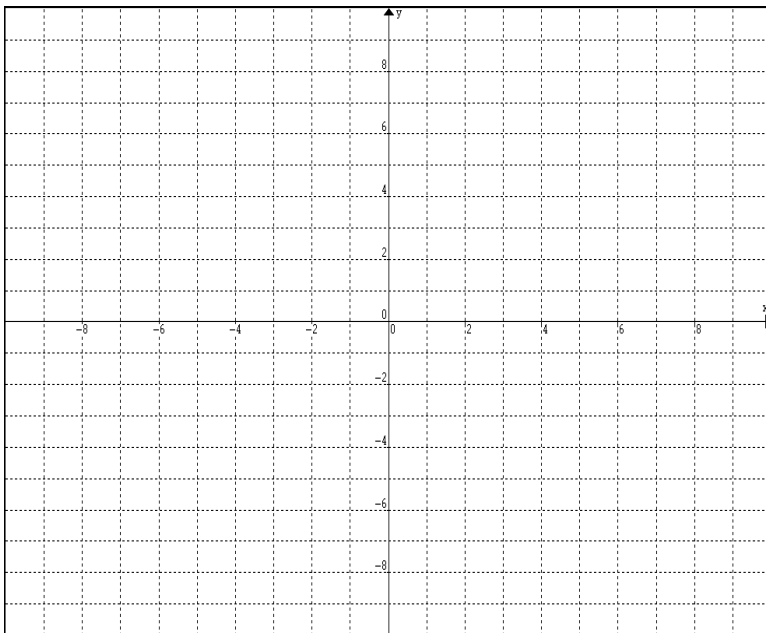6. $f(x) = -x^2 + 4$

Vertex =
y-intercept : x-intercept:

7. $f(x) = -(x+3)^2$
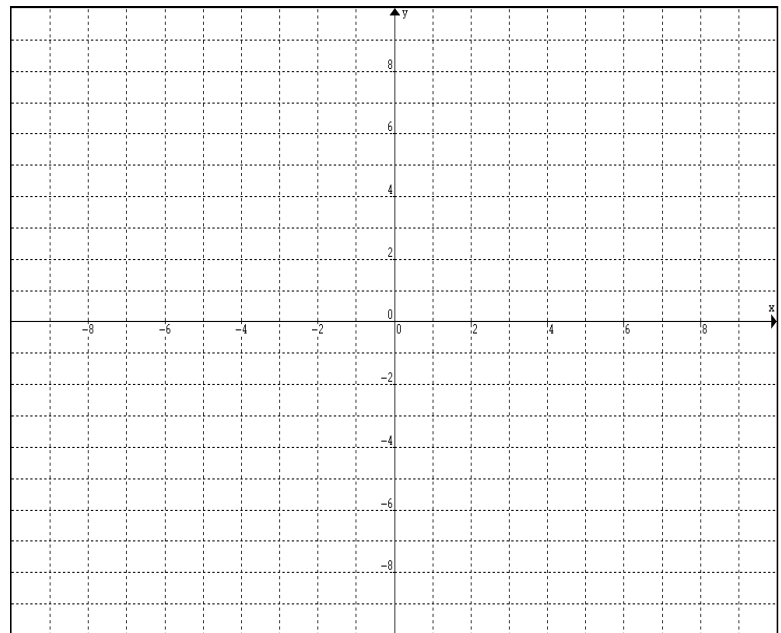
Vertex =
y-intercept : x-intercept:

8. $f(x) = -(x-1)^2 - 3$
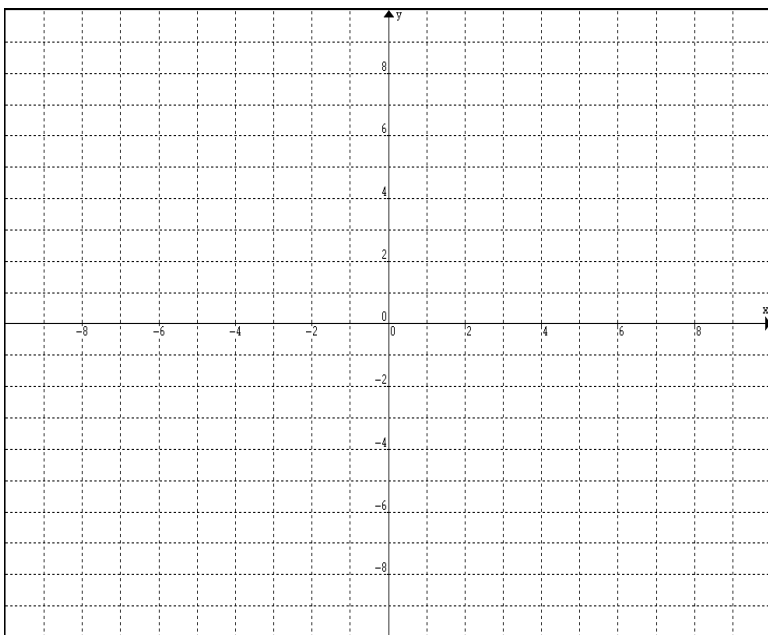
Vertex =
y-intercept : x-intercept:

9. $f(x) = 2x^2$

Vertex =
y-intercept : x-intercept:
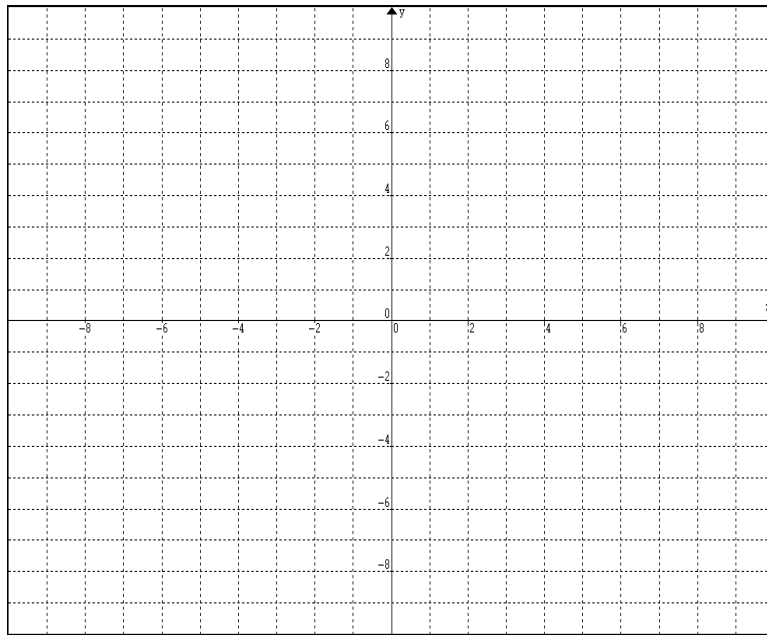
10. $f(x) = -2x^2$

Vertex =
y-intercept : x-intercept:
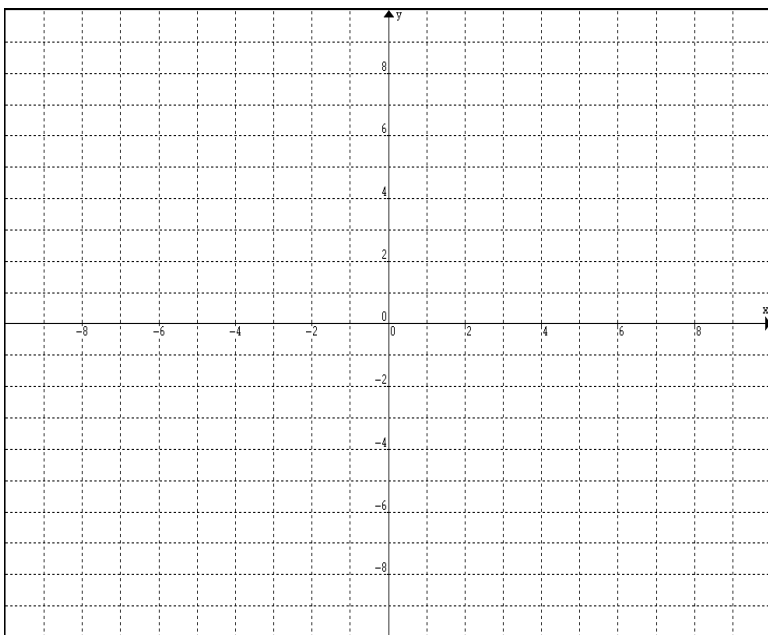
11. $f(x) = 2(x+3)^2 - 6$

Vertex =
y-intercept : x-intercept:

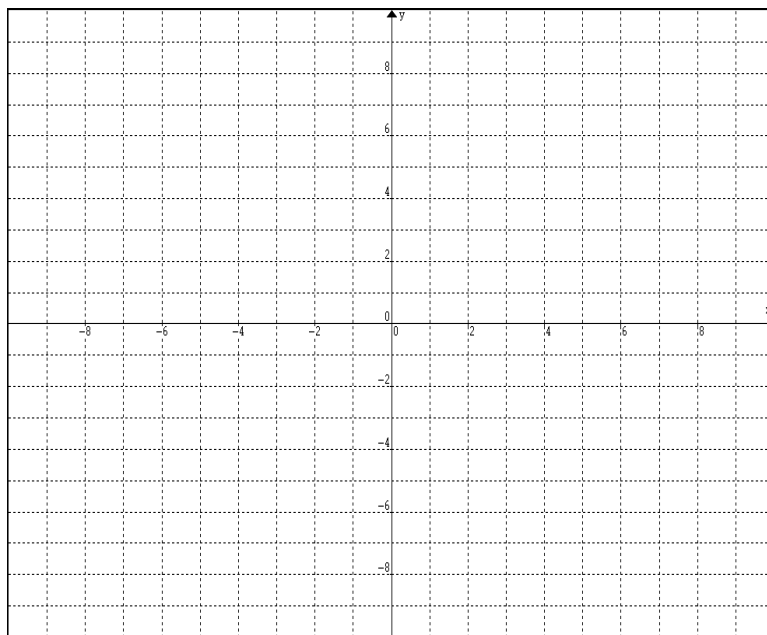12. $f(x) = -2(x-1)^2 - 2$

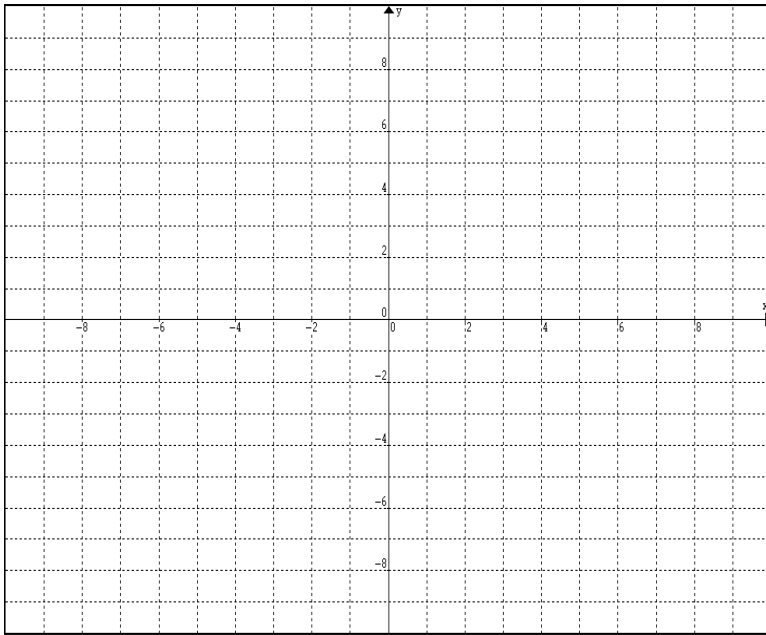Vertex =
y-intercept : x-intercept:

13. $f(x) = x^2 + 4x - 5$

Vertex =
y-intercept : x-intercept:
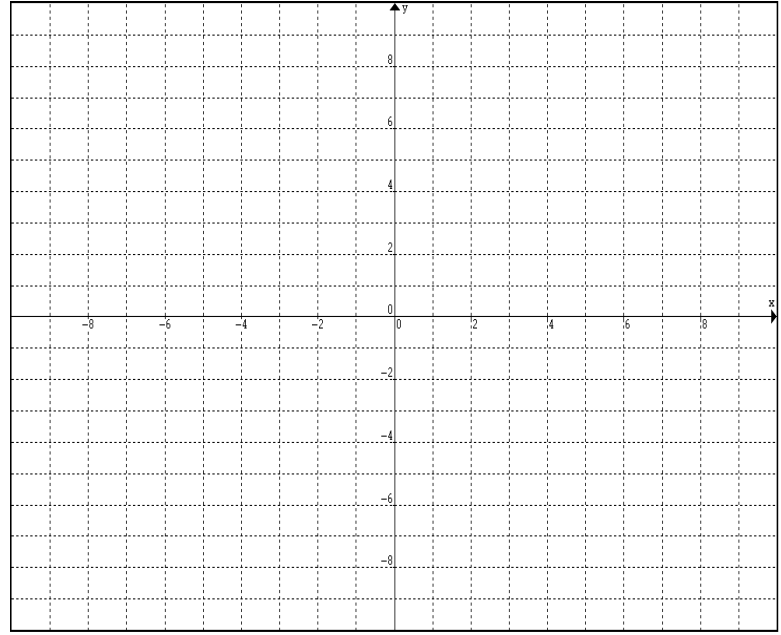
14. $f(x) = x^2 + 6x + 2$

Vertex =
y-intercept : x-intercept:

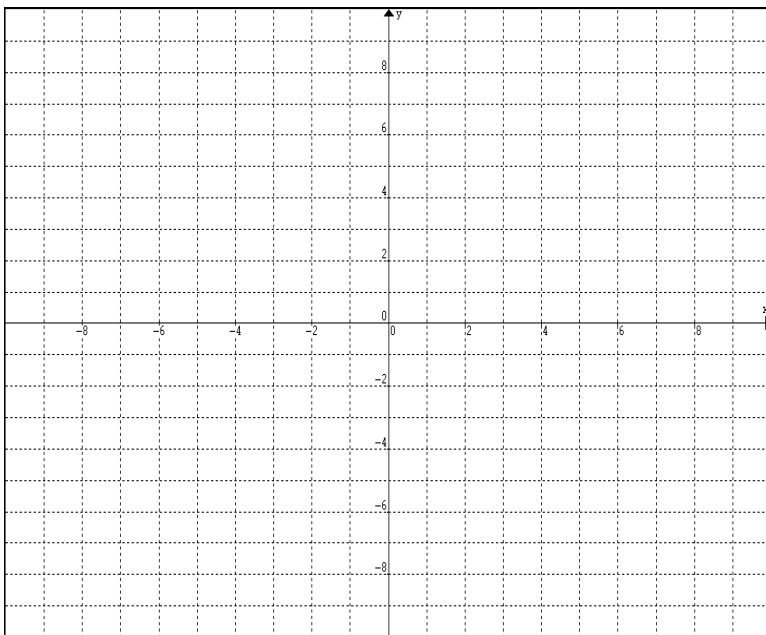15. $f(x) = x^2 + 4x + 7$

Vertex =
y-intercept : x-intercept:
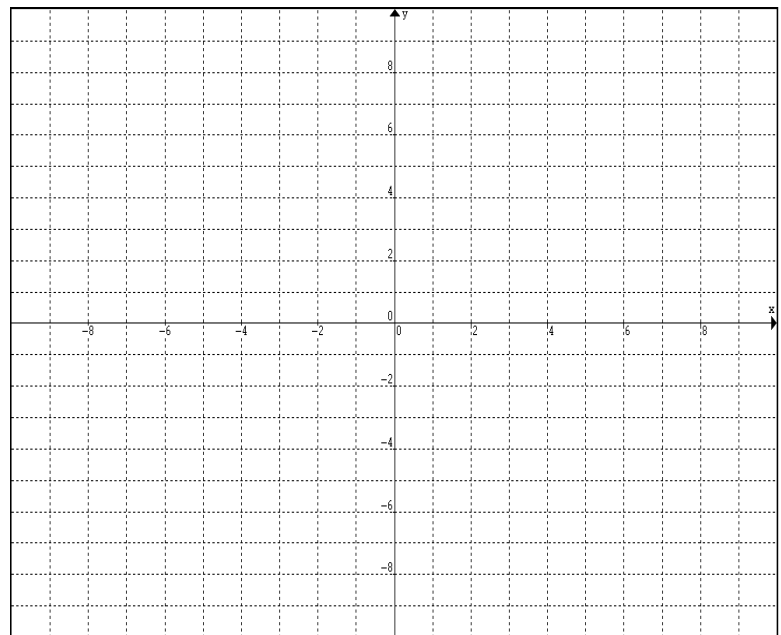
16. $f(x) = x^2 - 6x + 2$

Vertex =
y-intercept : x-intercept:
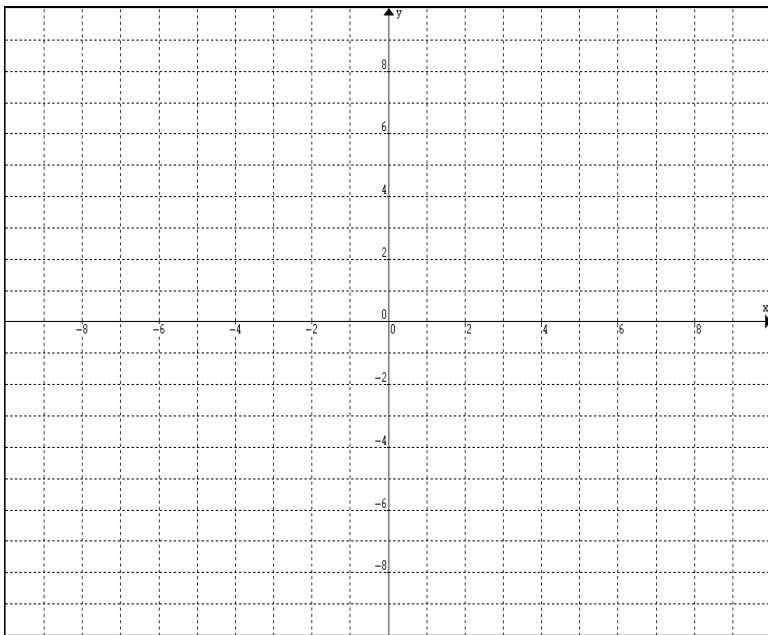
17. $f(x) = -x^2 + 6x - 2$

Vertex =
y-intercept : x-intercept:
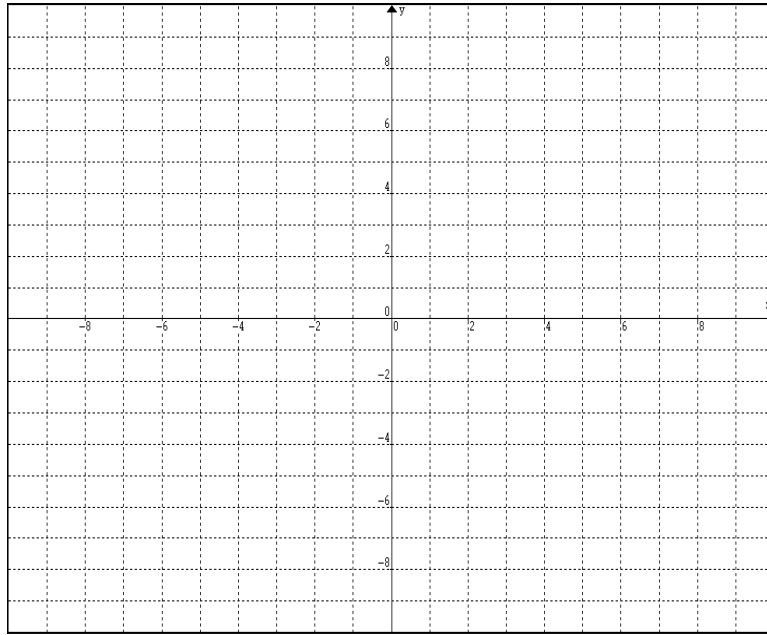
18. $f(x) = -x^2 - 4x - 7$

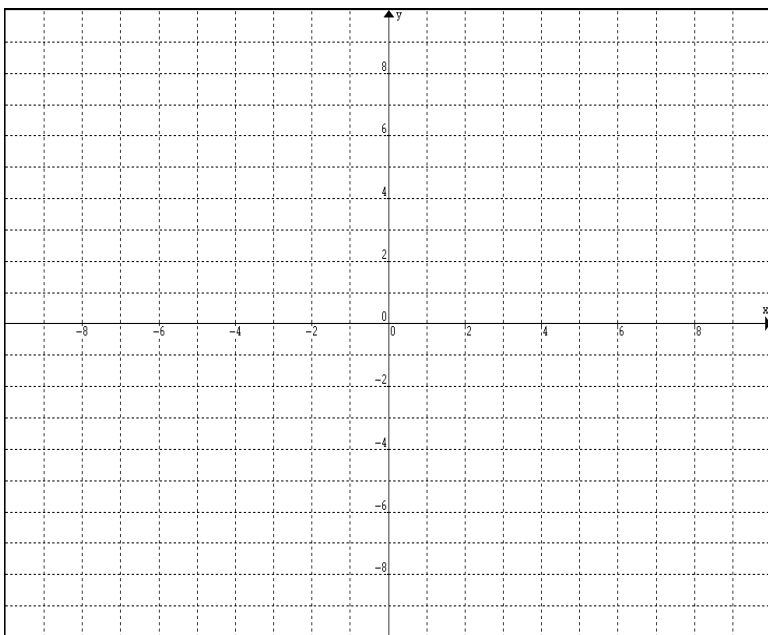Vertex =
y-intercept : x-intercept:

19. $f(x) = -x^2 - 6x - 3$
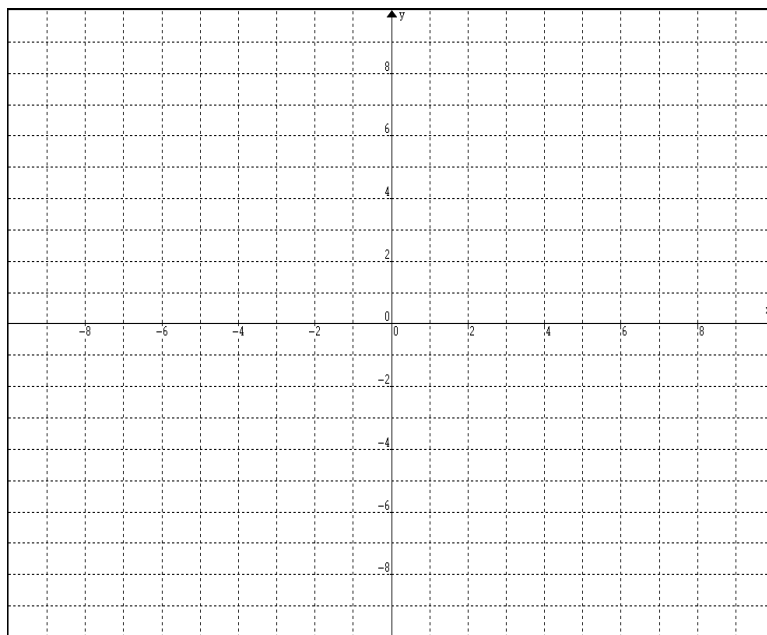
Vertex =
y-intercept : x-intercept:

20. $f(x) = -x^2 + 4x + 4$
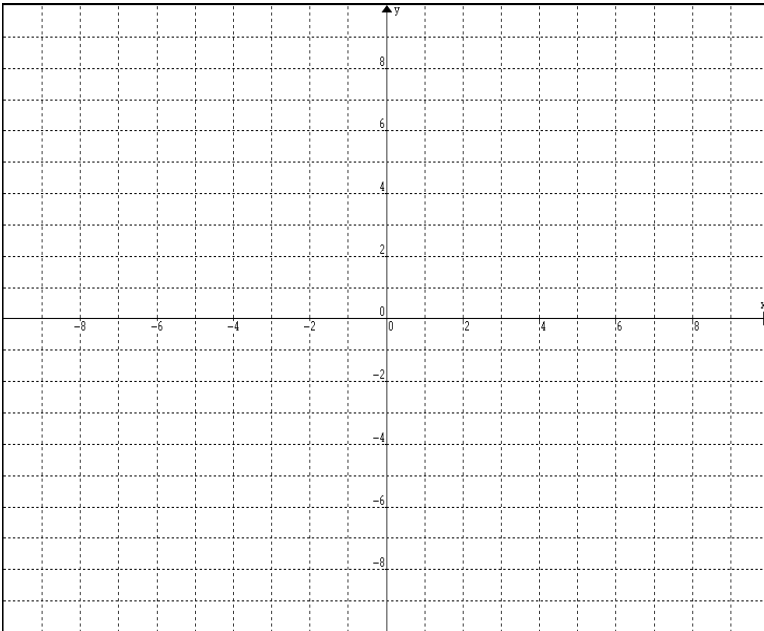
Vertex =
y-intercept : x-intercept:

21. $f(x) = 2x^2 - 12x + 9$

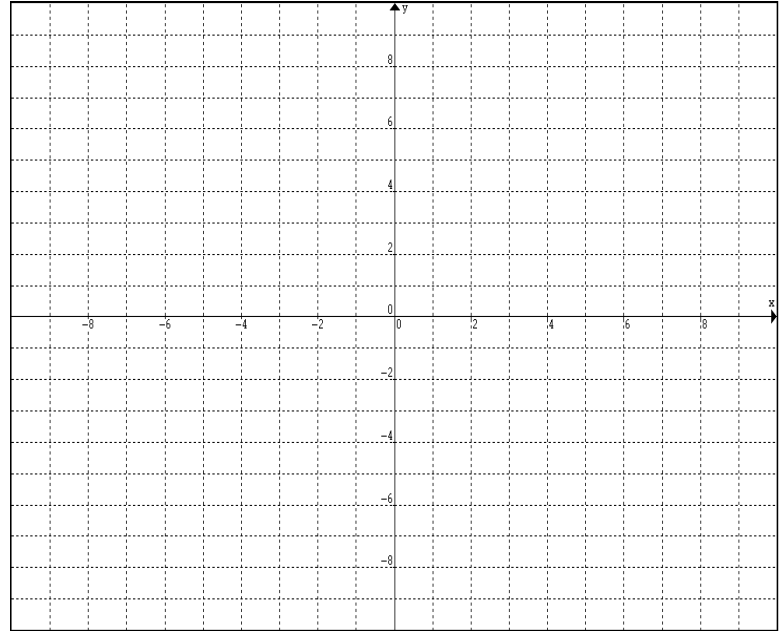Vertex =
y-intercept : x-intercept:

22. $f(x) = 3x^2 + 12x + 4$

Vertex =
y-intercept : x-intercept:

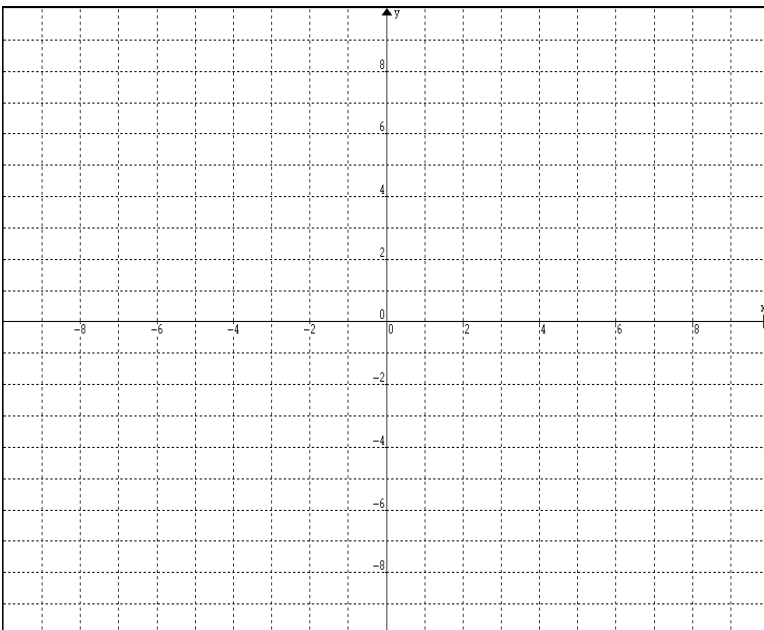23. $f(x) = 4x^2 - 8x + 2$

Vertex =
y-intercept : x-intercept:
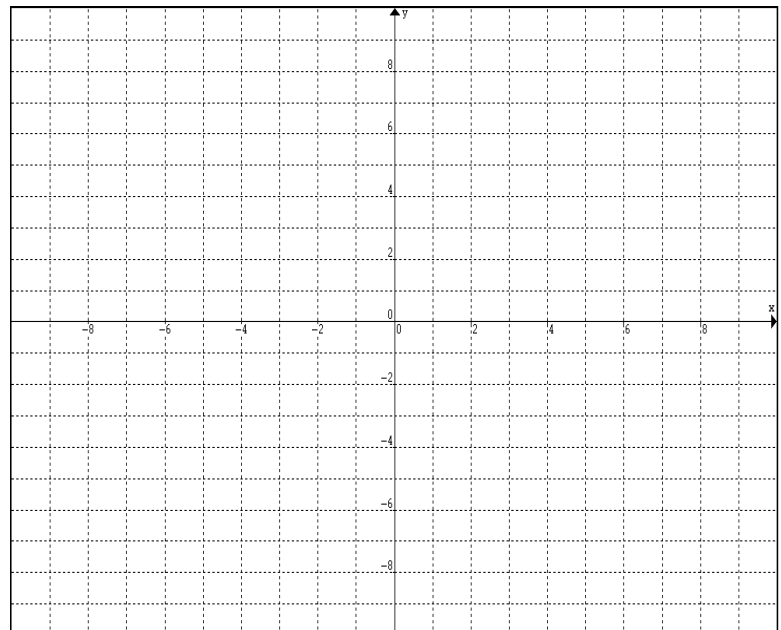
24. $f(x) = 2x^2 + 8x + 2$

Vertex =
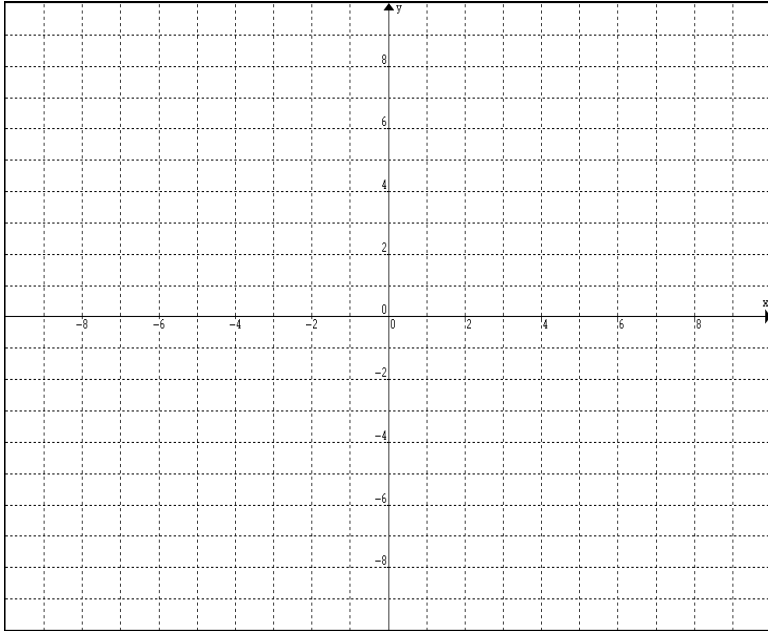y-intercept : x-intercept:

25. $f(x) = -2x^2 + 12x - 10$

Vertex =
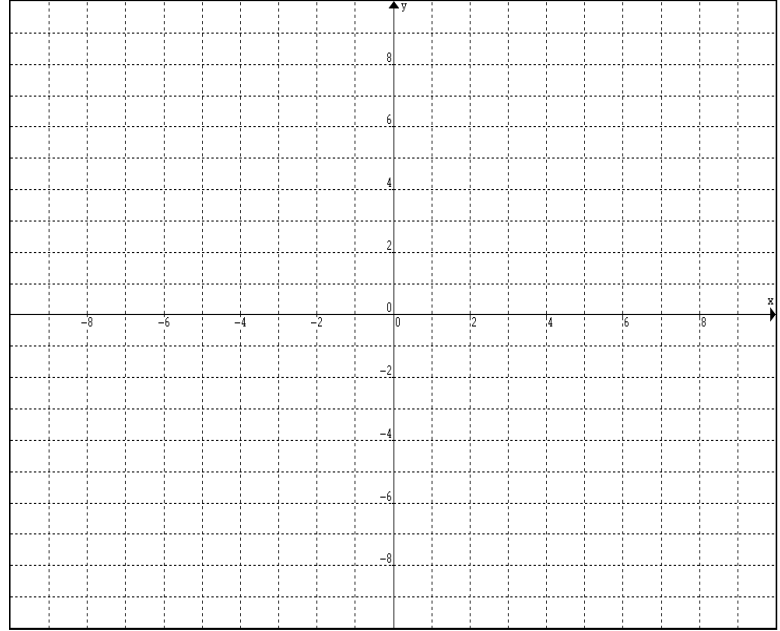y-intercept : x-intercept:

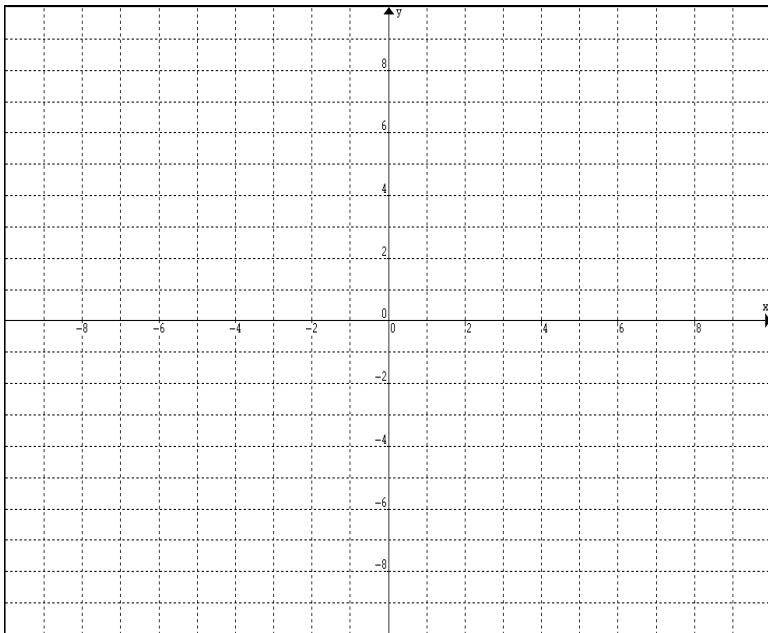26. $f(x) = -3x^2 - 12x - 5$

Vertex =
y-intercept : x-intercept:
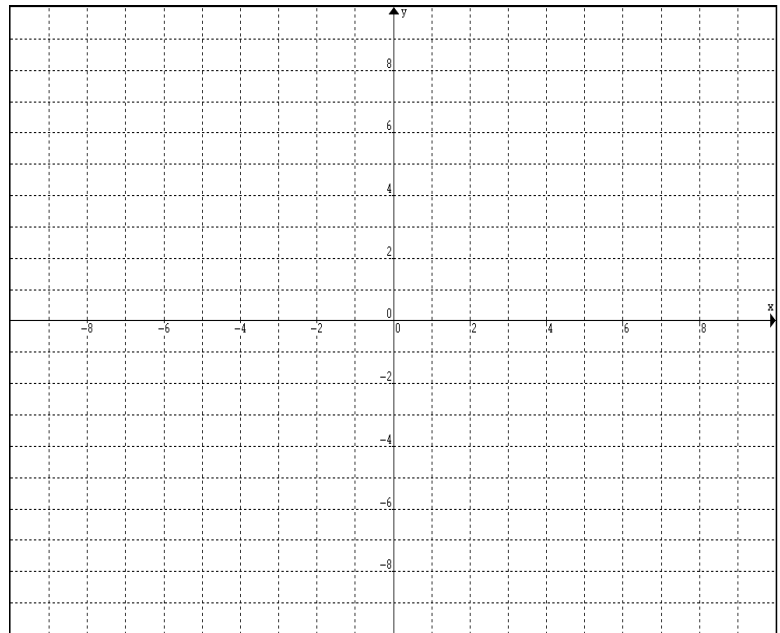
27. $f(x) = -3x^2 + 12x - 2$

Vertex =
y-intercept : x-intercept:

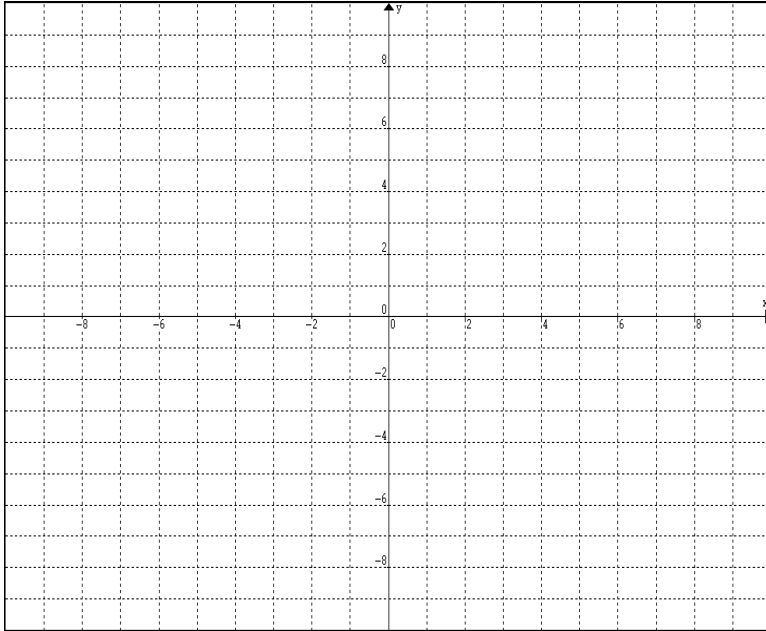28. $f(x) = -4x^2 - 8x + 3$

Vertex =
y-intercept : x-intercept:

7

29. $f(x) = 2x^2 - 8x + 10$

Vertex =
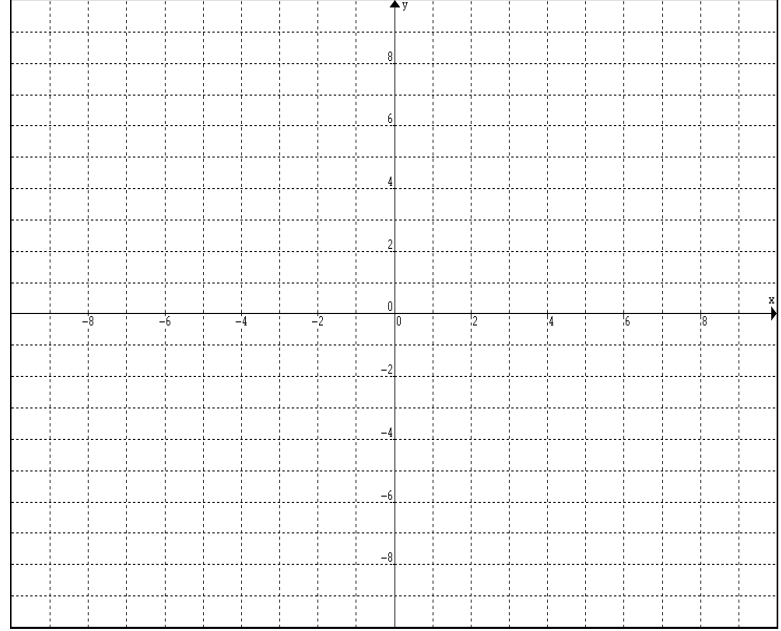*y*-intercept :   *x*-intercept:

30. $f(x) = -3x^2 - 6x - 7$

Vertex =
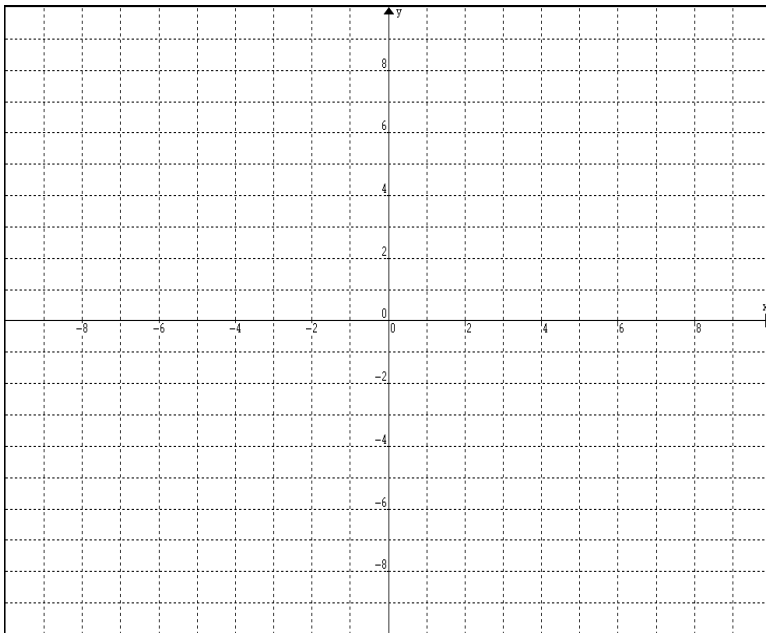*y*-intercept :   *x*-intercept:

31. $f(x) = -2x^2 + 8x - 8$
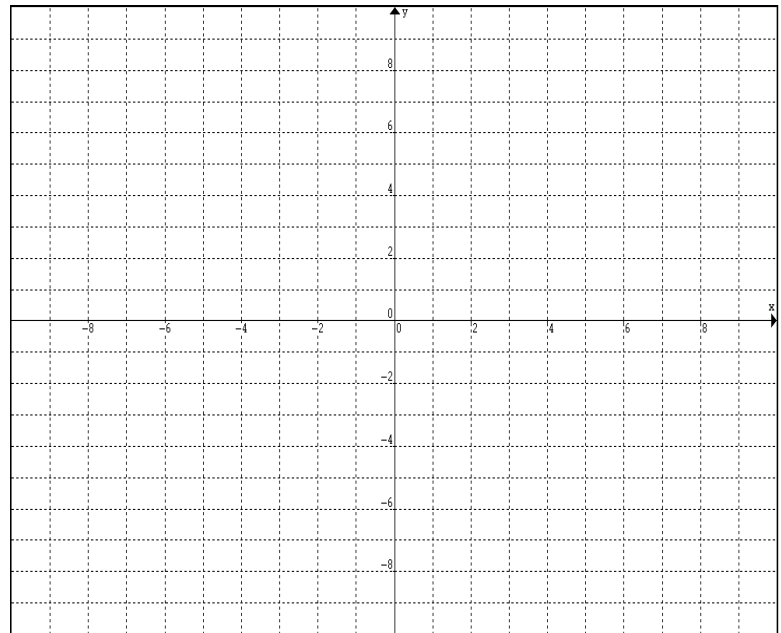
Vertex =
y-intercept :   *x*-intercept:

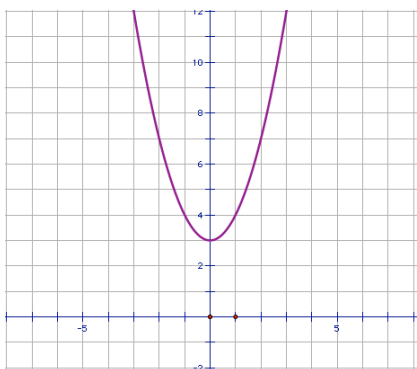32. $f(x) = 3x^2 + 6x + 3$
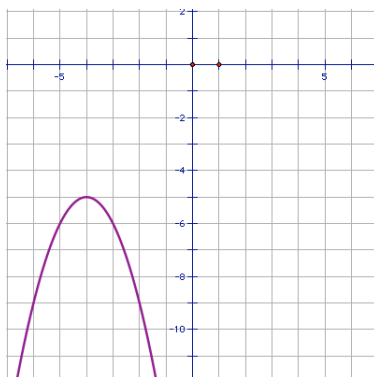
Vertex =
y-intercept :   *x*-intercept:

8

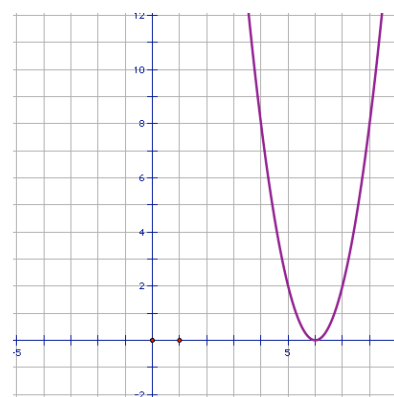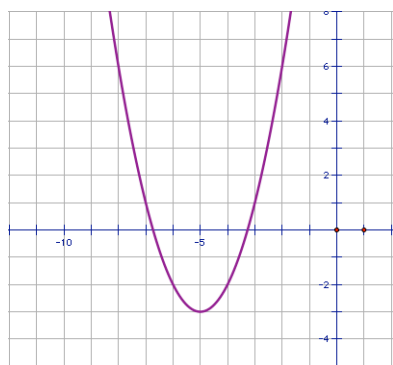**Write an equation of each graph below in the form** $f(x) = a(x-h)^2 + k$.

33. $f(x) =$ _____

34. $f(x) =$ _____
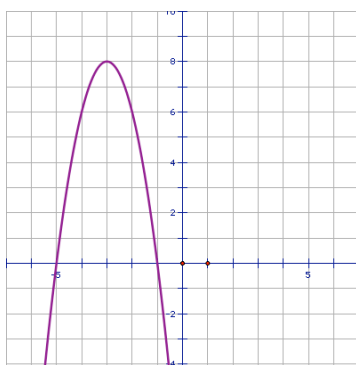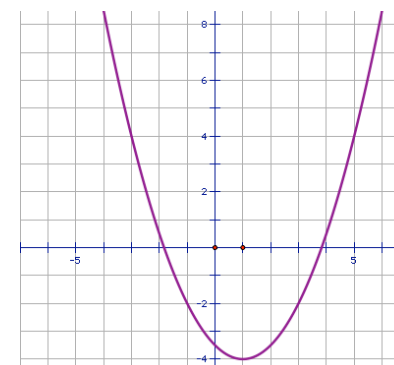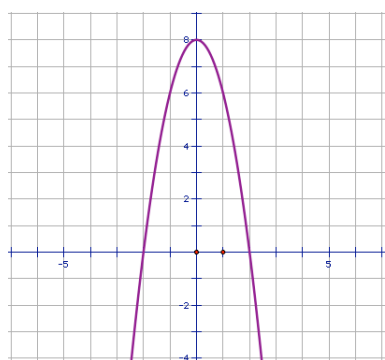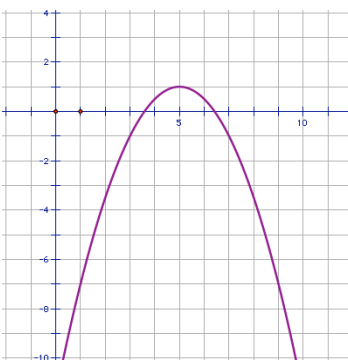
35. $f(x) =$ _____

36. $f(x) =$ _____

37. $f(x) =$ _____

38. $f(x) =$ _____

39. $f(x) =$ _____

40. $f(x) =$ _____

41. $f(x) =$ _____