

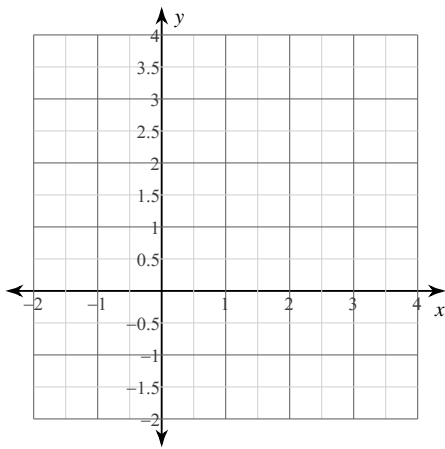
Chapter 4 Review Sections 4-1, 4-2 and Factoring

Date _____ Period _____

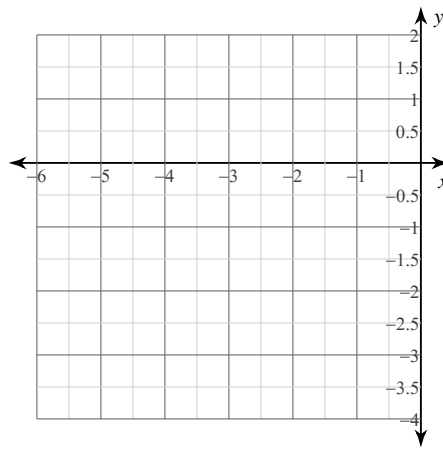
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Sketch the graph of each function. Identify the vertex, axis of symmetry, minimum or maximum, domain and range.

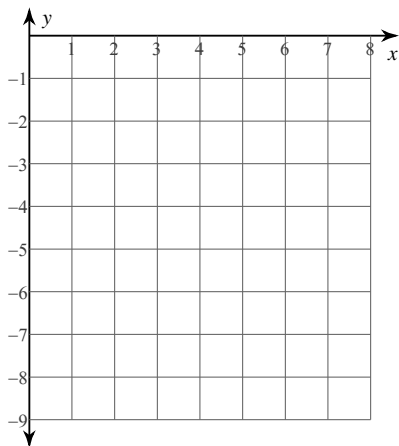
1) $y = (x - 1)^2 - 1$



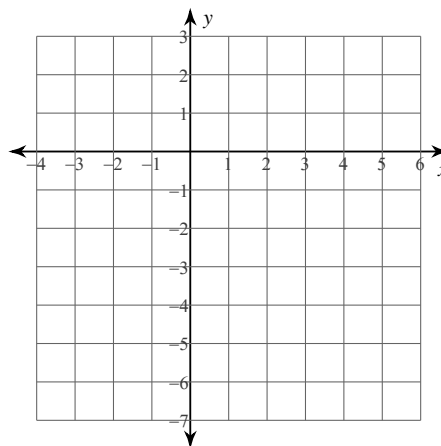
2) $y = (x + 3)^2 - 3$



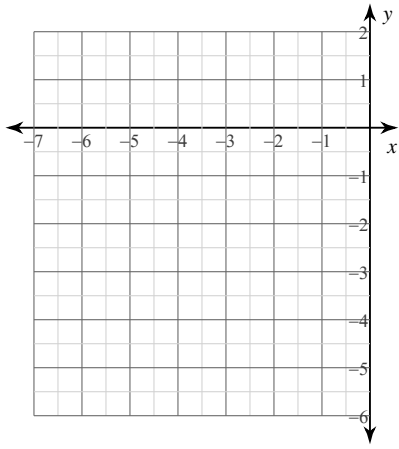
3) $y = -(x - 3)^2 - 4$



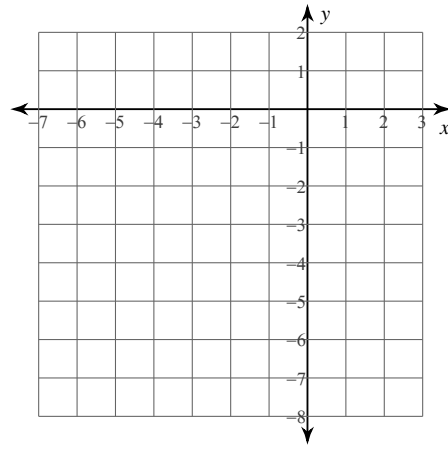
4) $f(x) = -2(x - 1)^2 + 2$



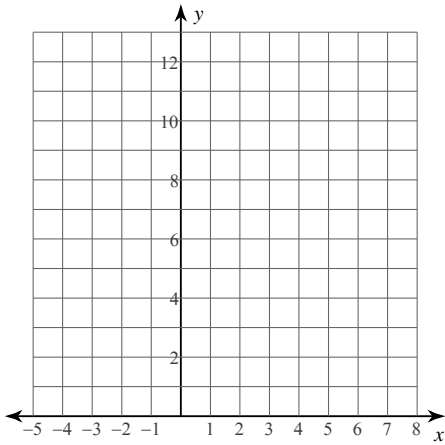
5) $f(x) = (x + 4)^2 - 4$



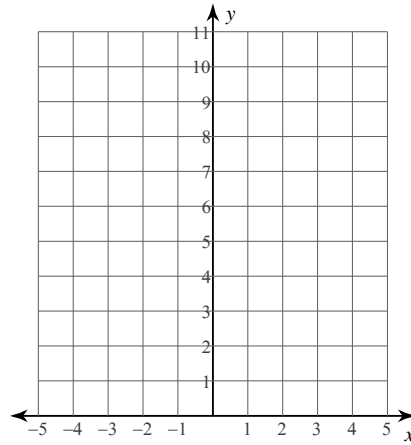
6) $f(x) = -2(x + 2)^2 + 1$



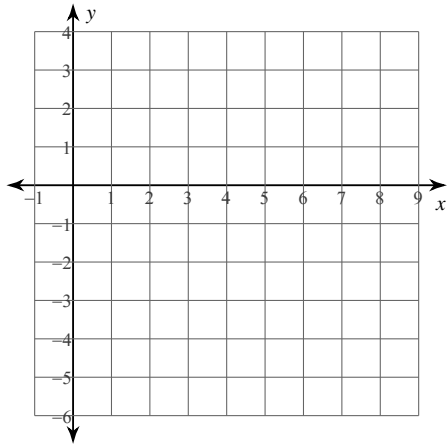
7) $y = 2x^2 - 16x + 36$



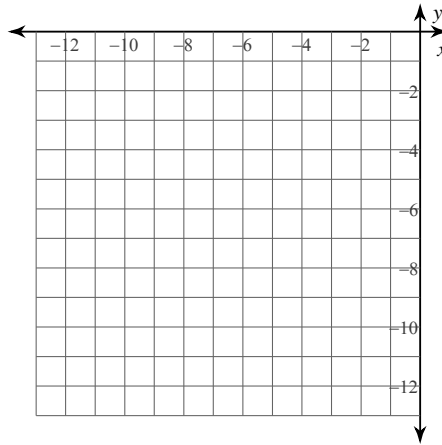
8) $y = 2x^2 + 4x + 4$



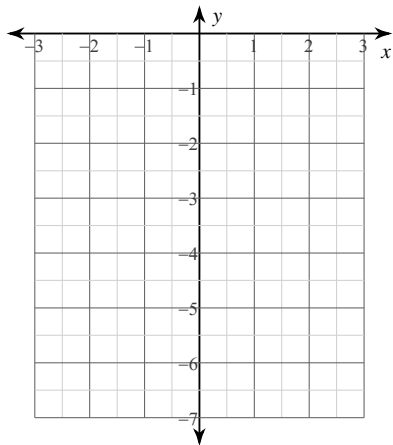
9) $y = -2x^2 + 8x - 5$



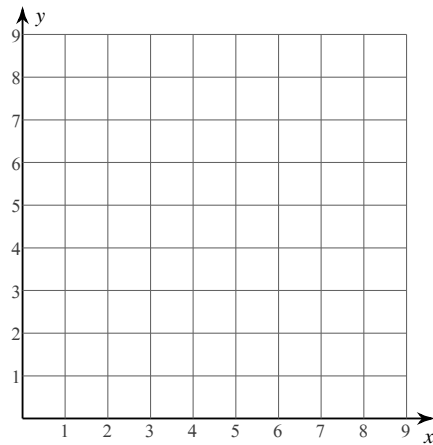
10) $f(x) = -2x^2 - 16x - 36$



11) $f(x) = -x^2 + 2x - 3$



12) $f(x) = x^2 - 8x + 20$



Factor each completely.

13) $40x^3 + 15x^2 - 48x - 18$

14) $14n^3 + 4n^2 - 49n - 14$

15) $3k^2 + 12k$

16) $3x^2 + 6x + 3$

17) $m^2 + 8m$

18) $v^2 - 6v - 40$

19) $16x^2 - 9$

20) $25n^2 - 4$

Solve each equation by factoring.

21) $3k^2 - 15k - 18 = 0$

22) $6p^2 + 24p - 72 = 0$

23) $x^2 - 12x + 36 = 0$