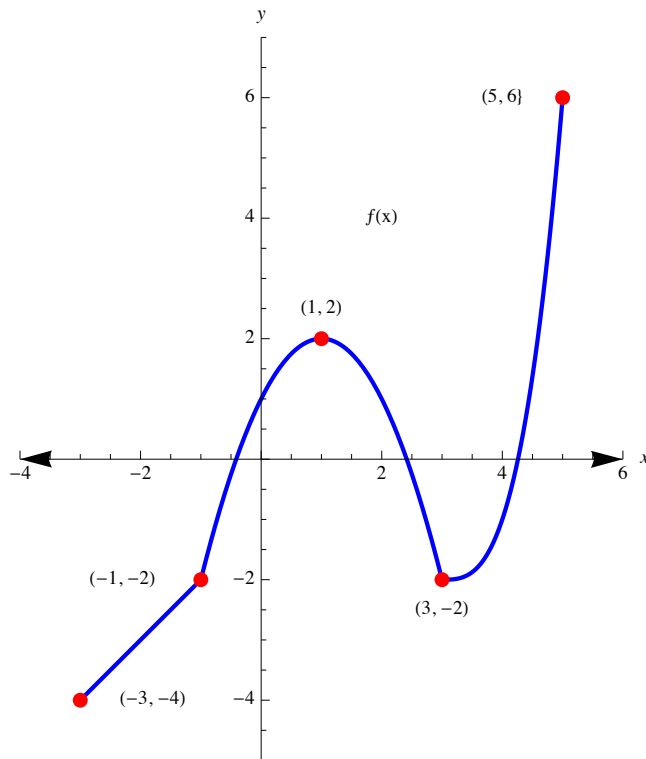


Use the following sketch of $f(x)$ to graph each of the functions listed below.



1. $f(x - 3)$
2. $f(2x)$
3. $-f(x + 4)$
4. $f(-x) - 2$
5. $-f(x + 2) + 4$
6. $2f\left(-\frac{1}{3}x + 3\right)$
7. $-f(-2x) - 3$
8. $-\frac{1}{2}f(3x - 4) + 2$

For each of the following, identify the parent function of the graph. Then sketch the graph.

9. $g(x) = (x + 2)^2 - 3$

10. $h(x) = -(3 - x)^3 + 2$

11. $j(x) = \left| \frac{1}{2}x + 2 \right| - 4$

12. $k(x) = -\sqrt{-x + 4}$

13. $m(x) = \frac{1}{3} \llbracket 2x + 5 \rrbracket - 2$

14. $n(x) = \frac{1}{2} \sqrt{4x + 5} + 2$

15. $p(x) = -\frac{1}{x+2} - 5$

16. $q(x) = -2(x + 3)^2 - 2$