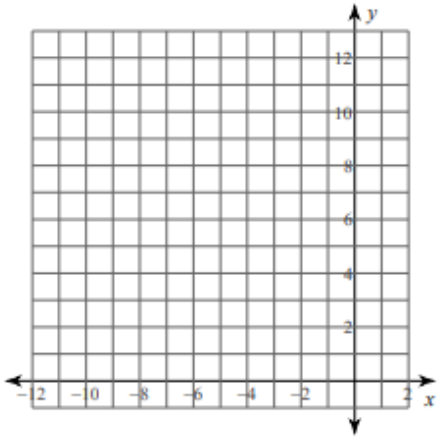
Name _____ Date _____ Pd _____

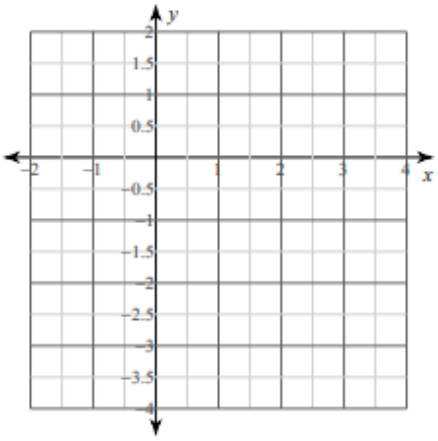
Chapter 9 Test Review

Sketch the graph of each function.

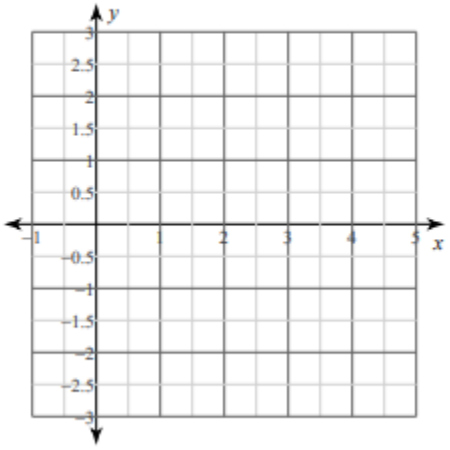
1) $y = 3x^2$



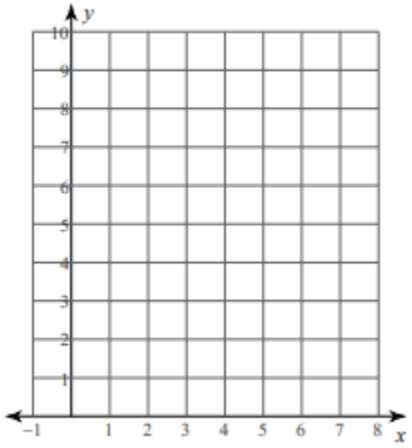
2) $y = -\frac{1}{2}x^2$



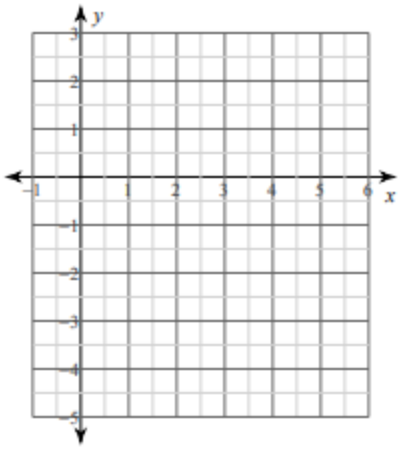
3) $y = -x^2 + 2x + 1$



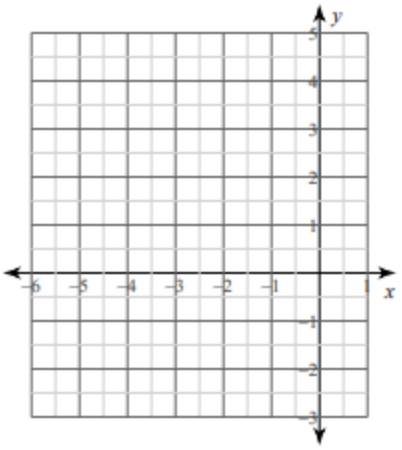
4) $y = 2x^2 - 16x + 33$



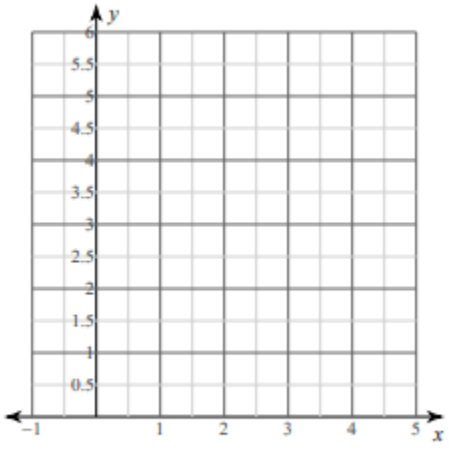
5) $y = x^2 - 8x + 13$



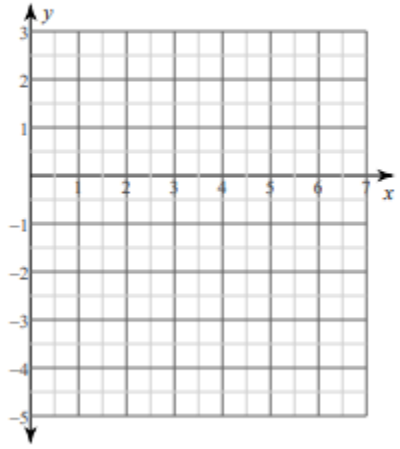
6) $y = -x^2 - 8x - 13$



7) $y = (x-3)^2 + 1$



8) $y = \frac{1}{2}(x-4)^2 - 2$



Simplify completely and show all work.

9. $\sqrt{99x^3}$

10. $\sqrt{128h^5w}$

11. $4\sqrt{80} - \sqrt{80}$

12. $\sqrt{11} - \sqrt{176}$

13. $\frac{\sqrt{3d^4r^4}}{5d^5r^4}$

14. $\frac{6-\sqrt{7}}{4+\sqrt{2}}$

15. $\sqrt{50x^5w^5}$

16. $\sqrt{8g^7x}$

17. $-\sqrt{54} + \sqrt{45} + \sqrt{24} - \sqrt{80}$

18. $4\sqrt{32} + 9\sqrt{32} + 5\sqrt{32}$

19. $\frac{1+\sqrt{5n}}{\sqrt{2n}}$

20. $\frac{1-\sqrt{11}}{1-\sqrt{7}}$

Divide the radical expressions and simplify completely.

21. $\dfrac{\sqrt{15}}{5\sqrt{20}}$

22. $\dfrac{\sqrt{8}}{\sqrt{100}}$

23. $\dfrac{\sqrt{6}}{\sqrt{27}}$

24. $\dfrac{3\sqrt{20}}{2\sqrt{4}}$

25. $\dfrac{4}{\sqrt{5}}$

26. $\dfrac{\sqrt{4}}{5\sqrt{3}}$

27. $\dfrac{\sqrt{5}}{\sqrt{3}}$

28. $\dfrac{\sqrt{2}}{2\sqrt{3}}$

29. $\dfrac{\sqrt{3x^2y^3}}{4\sqrt{5xy^3}}$

30. $\dfrac{\sqrt{15xy}}{3\sqrt{10xy^3}}$

31. $\dfrac{3-3\sqrt{3a}}{4\sqrt{8a}}$

32. $\dfrac{3n^2+\sqrt{2n^2}}{\sqrt{10n}}$