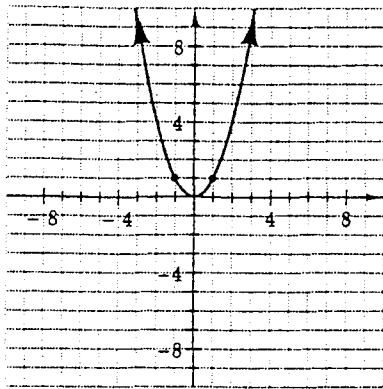
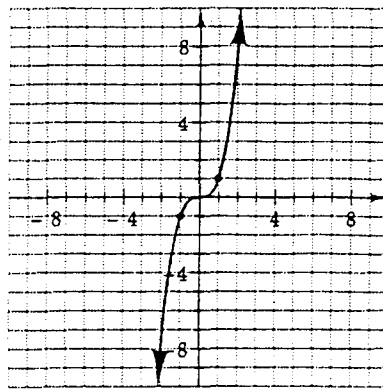


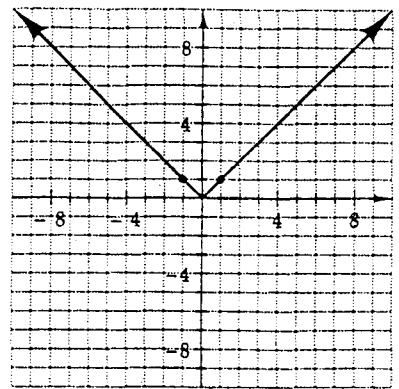
BASE GRAPHS



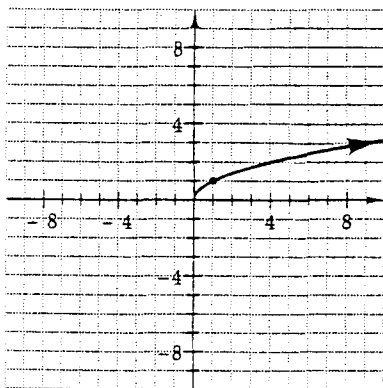
$$y = x^2$$



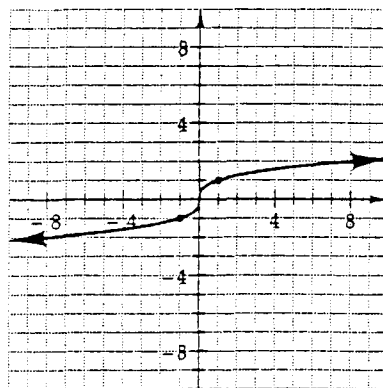
$$y = x^3$$



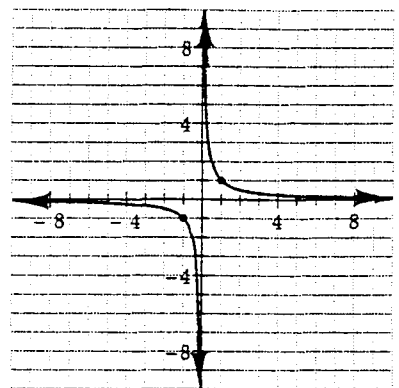
$$y = |x|$$



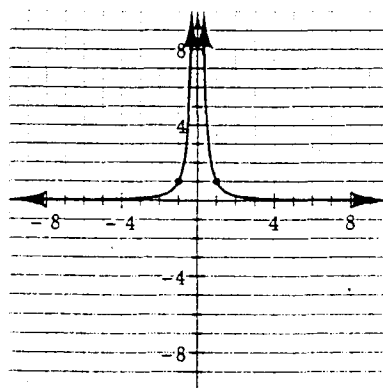
$$y = \sqrt{x}$$



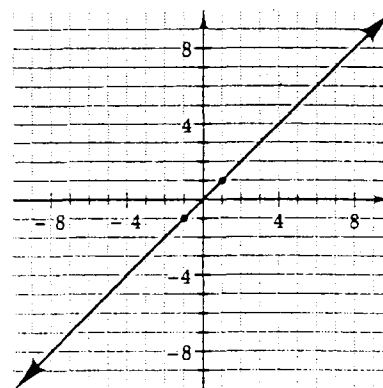
$$y = \sqrt[3]{x}$$



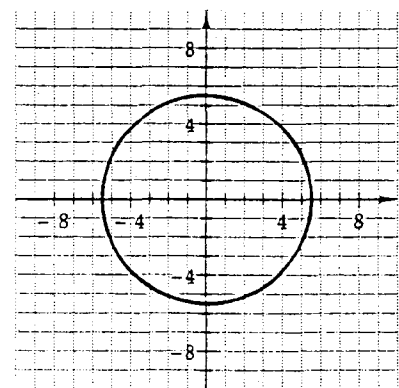
$$y = \frac{1}{x}$$



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



$$y = x$$



$$x^2 + y^2 = r^2$$

**Base Graphs & Translations
Homework Assignment**

Graph each of the following functions by recognizing the base graph and transformations. Clearly indicate the key points and label your axes. Use graph paper. No graphing calculators!

1. $y = x^2 + 3$

2. $y = -3|x|$

3. $f(x) = \sqrt[3]{x+2} + 1$

4. $g(x) = \sqrt{x-4}$

5. $y = \frac{1}{2}(x+3)^3$

6. $y = \frac{3}{x}$

7. $f(x) = \frac{1}{(x-2)^2}$

8. $y = 2\sqrt{x} - 4$

9. $f(x) = -(x-6)^2$

10. $y = \sqrt[3]{x} - 2$

11. $y = 3 - |x|$

12. $(x-1)^2 + y^2 = 4$

13. $y = -\frac{4}{x^2}$

14. $y = -x^3 + 2$

15. $f(x) = \frac{1}{x+3} - 4$

16. $(x+1)^2 + (y-2)^2 = 1$

17. $y = \frac{1}{3}x - 5$

18. $g(x) = 2|x-1| - 3$

19. $y = 4 - x$

20. $y = \frac{3}{x-2}$