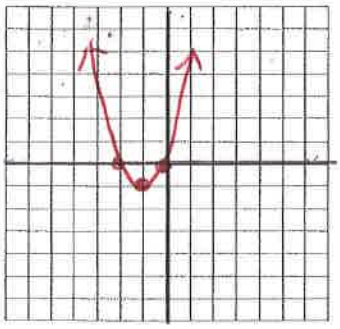
PreCalc
2.1 Transformations of Parent Graphs

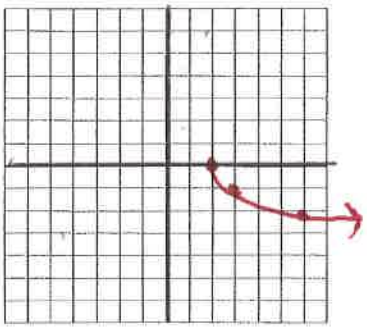
Name: _____
Date: _____

Directions: Graph each equation in the given coordinate plane.

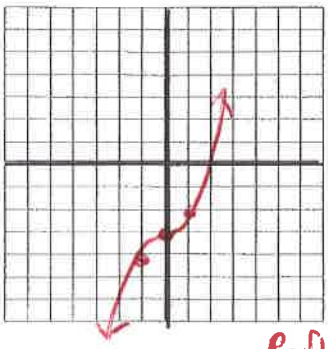
1. $y = (x+1)^2 - 1$ L1, D1



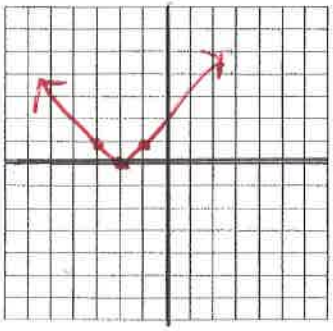
2. $y = -\sqrt{x-2}$ Refl. x-axis R2



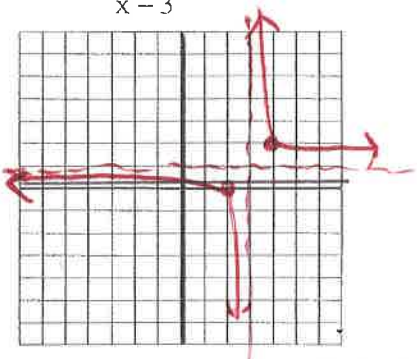
3. $y = x^3 - 3$ D3



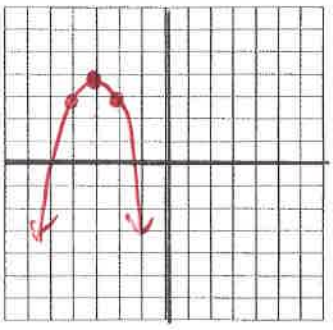
4. $y = |x+2|$ L2



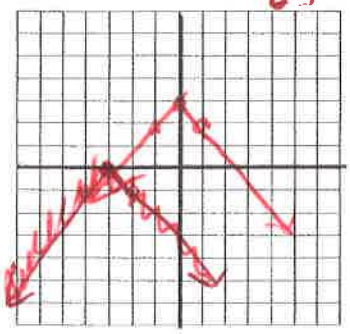
5. $y = \frac{1}{x-3} + 1$ R3, U1



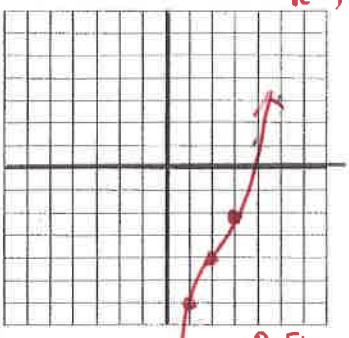
6. $y = -(x+3)^2 + 4$ Refl. x-axis L3, U4



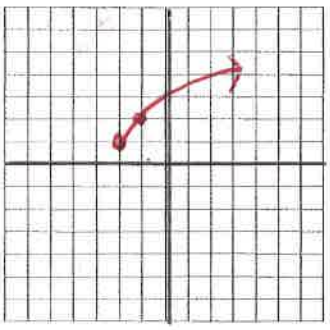
7. $y = -|x| + 3$ Refl. x-axis U3



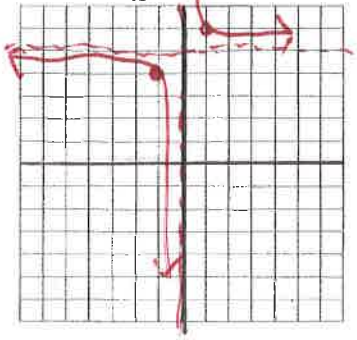
8. $y = 2(x-2)^3 - 4$ Vert. stretch R2, D4



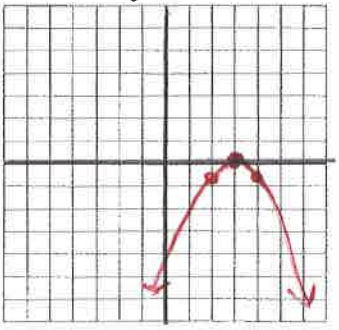
9. $y = \sqrt{x+2} + 1$ L2, U1



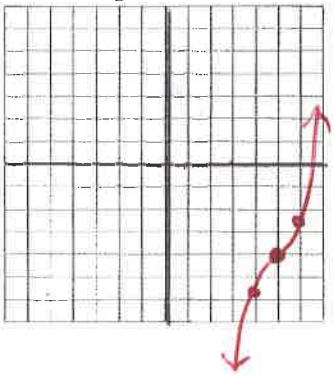
10. $y = \frac{1}{x} + 5$ U5



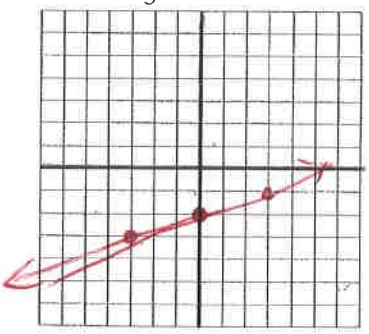
11. $y = -\frac{2}{5}(x-3)^2$ Refl. x-axis Vert. shrink R3



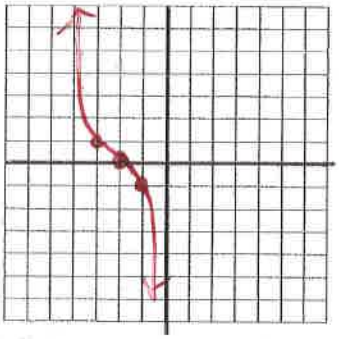
12. $y = \frac{5}{3}(x-5)^3 - 4$ Vert. stretch R5, D4



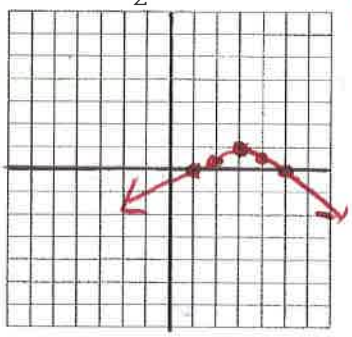
13. $y = \frac{1}{3}x - 2$ vert. shrink D7



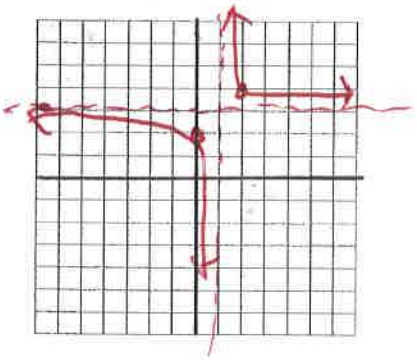
14. $y = -(x+2)^3$ Refl. x-axis L2



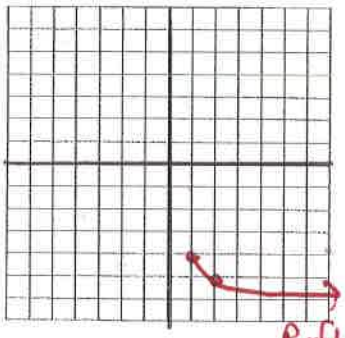
15. $y = -\frac{1}{2}|x-3|+1$ Refl. x-axis vert. shrink R3, U1



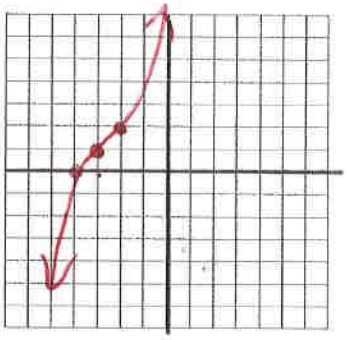
16. $y = \frac{1}{x-1}+3$ R1, U3



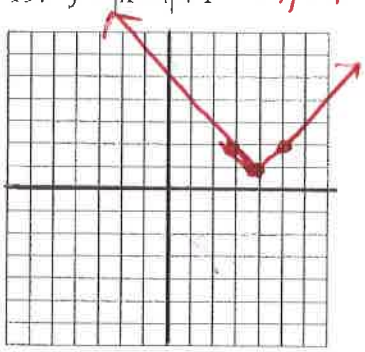
17. $y = -\sqrt{x-1}-4$ Refl. x-axis R1, D4



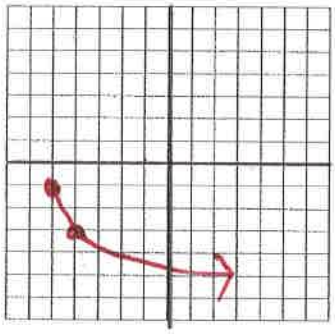
18. $y = (x+3)^3+1$ L3, U1



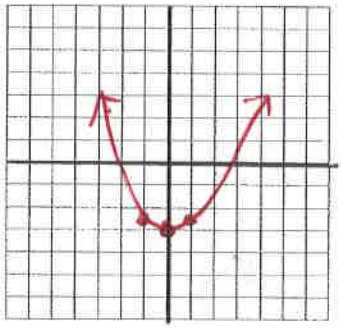
19. $y = |x-4|+1$ R4, U1



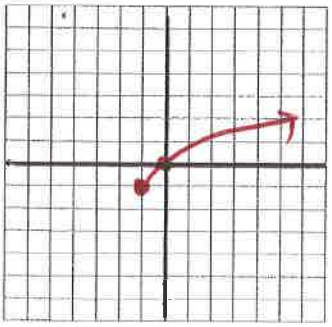
20. $y = -2\sqrt{x+5}-1$ Refl. x-axis vert stretch L5, D1



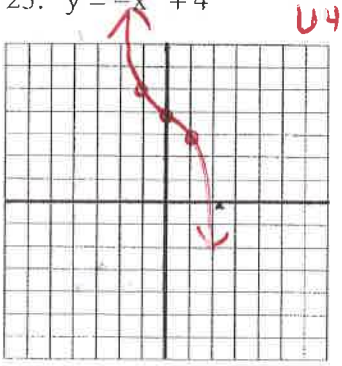
21. $y = \frac{1}{2}x^2 - 3$ vert. shrink D3



22. $y = \sqrt{x+1}-1$ L1, D1



23. $y = -x^3 + 4$ Refl. x-axis U4



24. $y = \frac{1}{x+2} - 3$ L2, D3