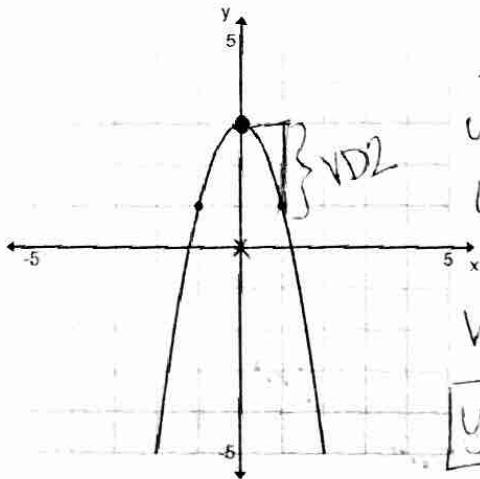


Graph to Equation for AAT Notes

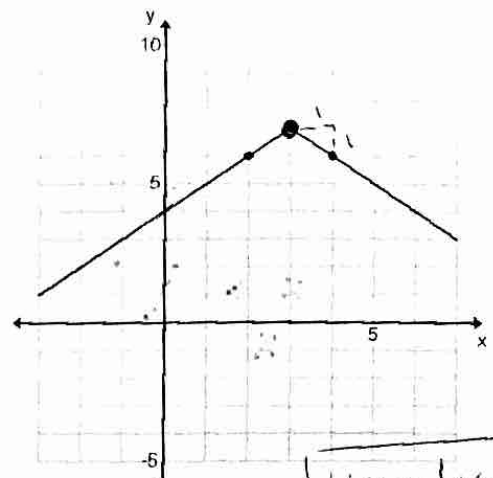
Find the equation of the following graphs:

1.



$x^2$  PF 2.  
yes reflection  
U3 (L/R/U/D)  
vertex

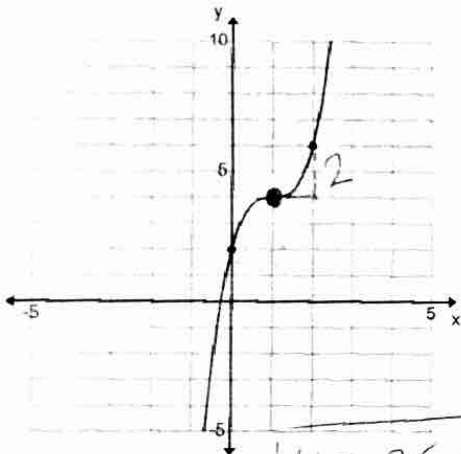
VD2  
 $y = -2x^2 + 3$



$|x|$   
yes  
R3, U7

$y = -|x-3| + 7$

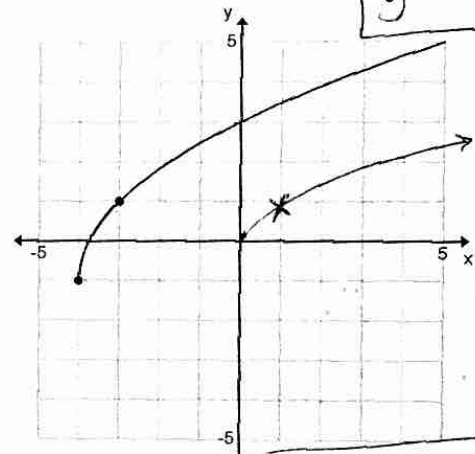
3.



$x^3$   
no  
R1, U4  
VD2

$y = 2(x-1)^3 + 4$

4.



$\sqrt{x}$   
no  
L4, D1  
VD2

$y = 2\sqrt{x+4} - 1$

5. A  <sup>$x^2$</sup> quadratic graph that is moved up 3 and right 7

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

6. An absolute value graph that is moved left 3, reflected over the x-axis and has a vertical dilation of 4

$y = -4|x+3|$

7. A square root graph that has a vertical dilation of  $\frac{1}{4}$  and has been moved down 8

$y = \frac{1}{4}\sqrt{x} - 8$

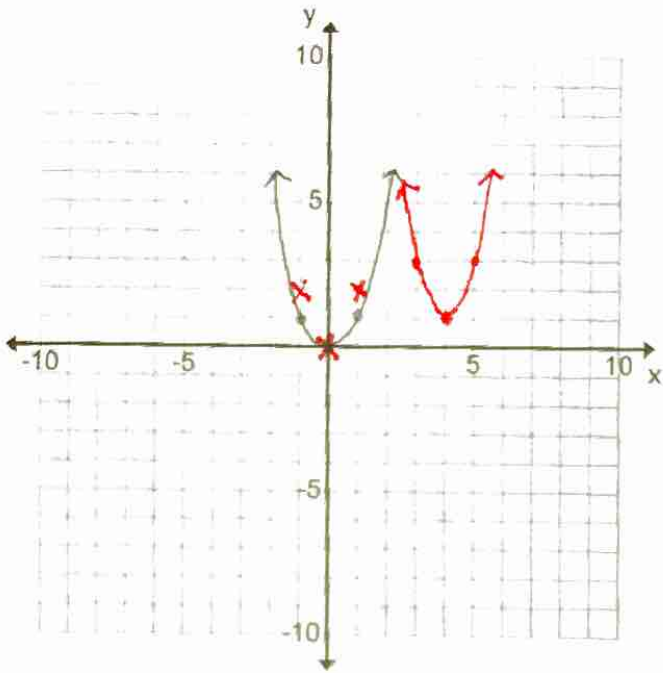
8. A cubic graph that has been moved left 6 and up 4

$y = (x+6)^3 + 4$

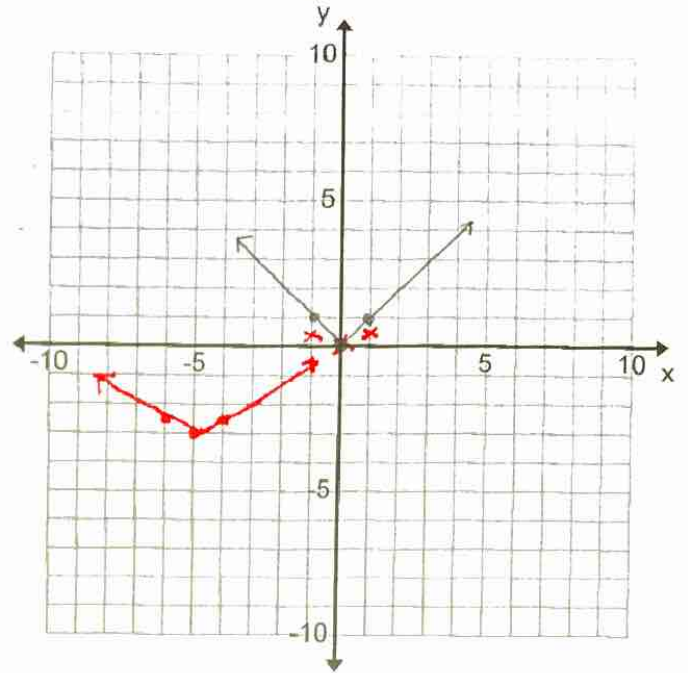
9. A function  $f(x)$  that has been moved left 3, down 5 and has a vertical dilation of 4

$4f(x+3) - 5$

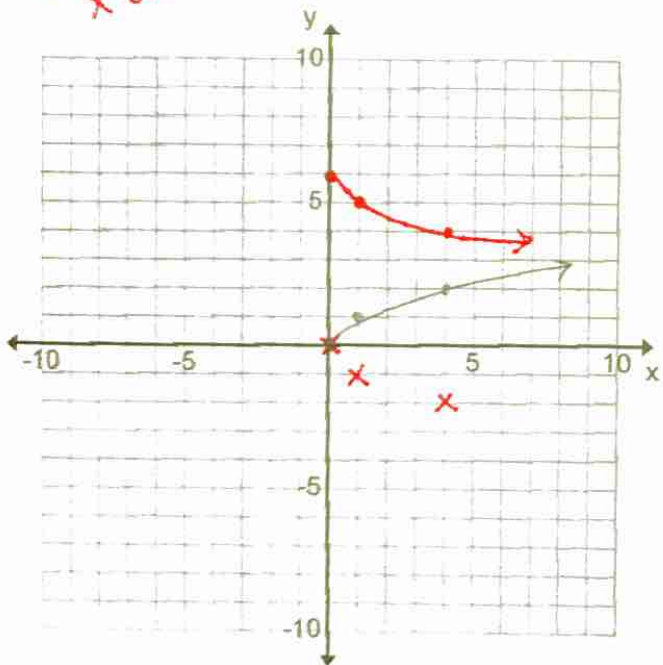
VD2 → R4 U1  
 10.  $y = 2(x-4)^2 + 1$



VD12 L5 D3  
 11.  $g(x) = \frac{1}{2}|x+5| - 3$



12.  $h(x) = -\sqrt{x} + 6$   
 over x-axis  
 UB



13.  $f(x) = -(x+3)^3 - 2$   
 over x-axis  
 L3 D2

