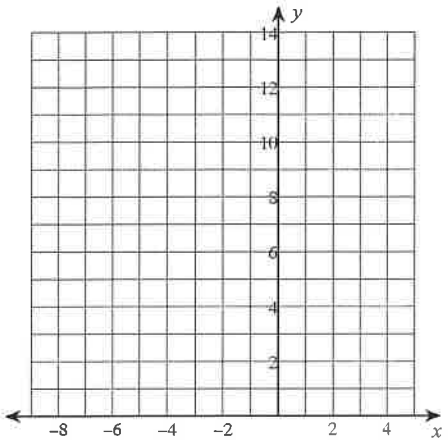
Honors Algebra 2 Name _____

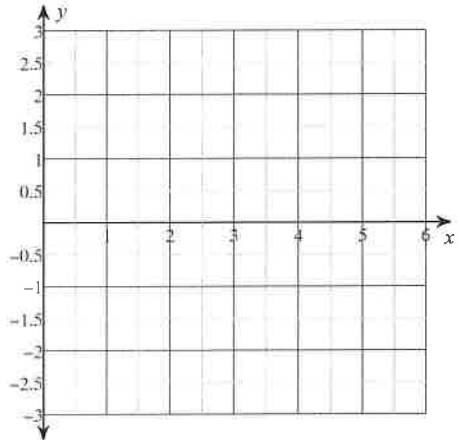
Graphing Quadratic Fxns

Sketch the graph of each function. State if the graph is concave up or concave down. Identify the maximum/minimum. State the intervals where the function is increasing and decreasing.

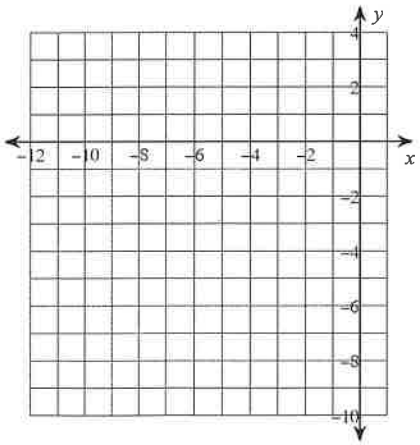
1) $y = 3x^2 - 18x + 28$



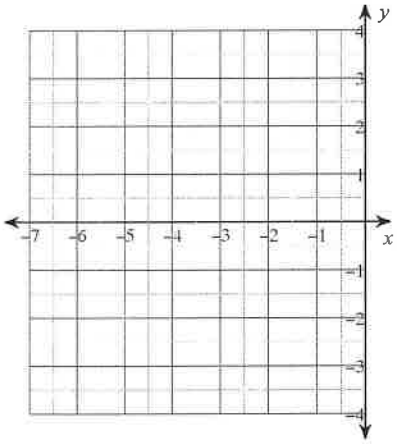
2) $y = x^2 - 6x + 7$



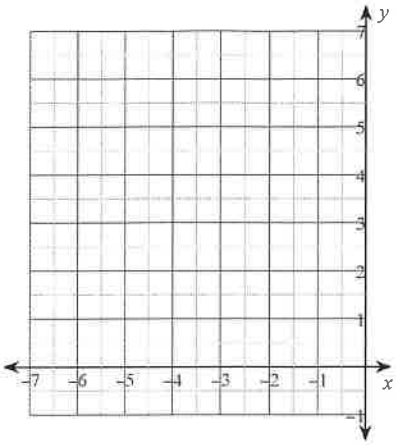
3) $y = -3x^2 - 24x - 45$



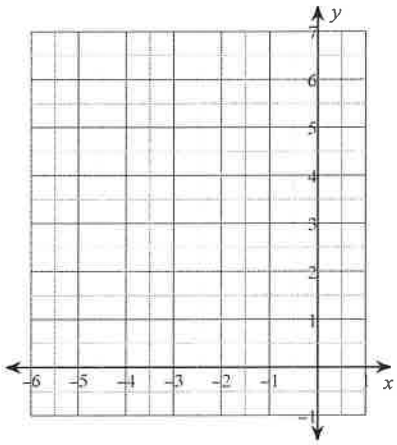
4) $y = x^2 + 8x + 14$



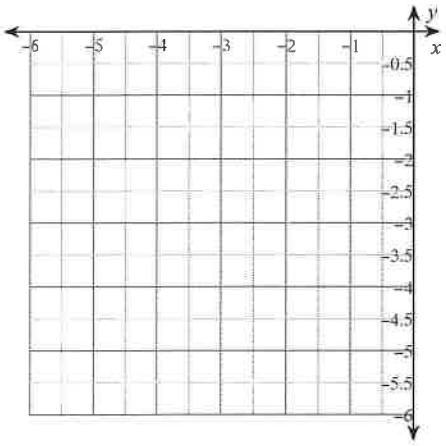
5) $y = x^2 + 8x + 17$



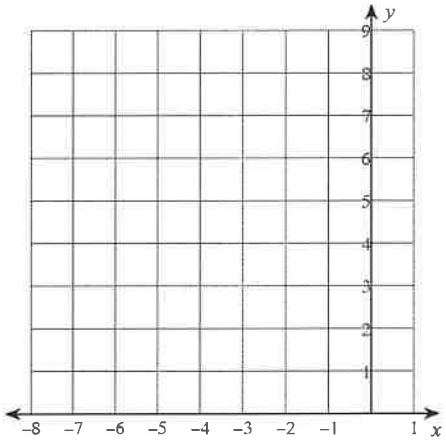
6) $y = \frac{1}{2}(x + 4)^2 + 3$



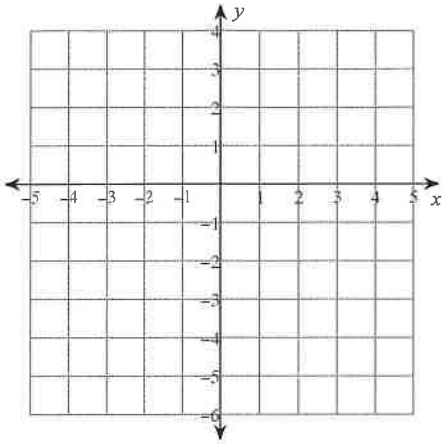
7) $y = -(x + 3)^2 - 1$



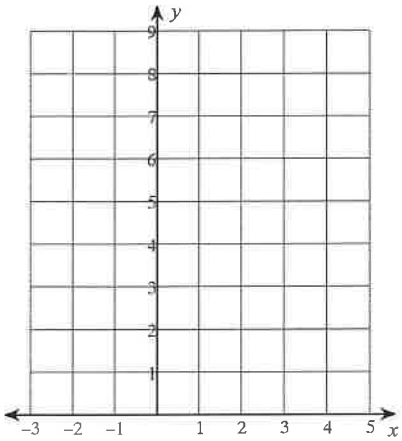
8) $y = (x + 4)^2 + 4$



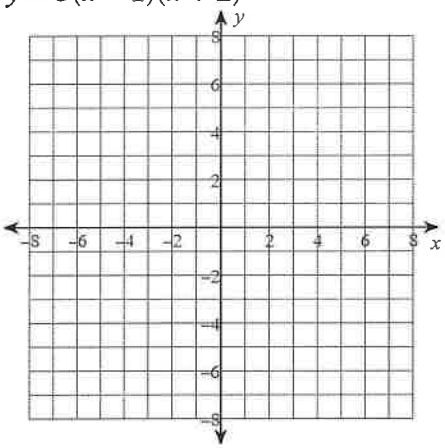
9) $y = -2(x-3)^2 + 3$



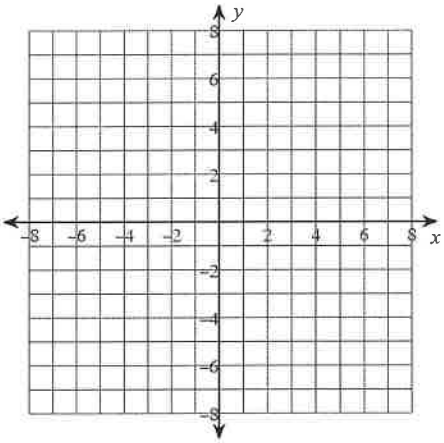
10) $y = (x-2)^2 + 4$



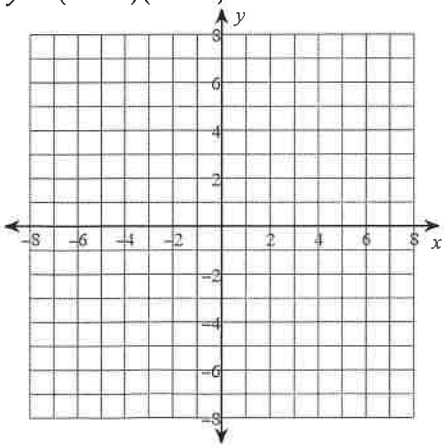
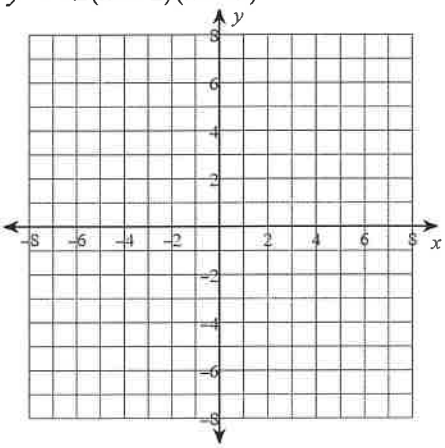
11) $y = 3(x-1)(x+2)$



12) $y = -\frac{1}{2}(x-5)(x+3)$



13) $y = (x-2)(x+4)$



14) $y = -2(x-1)(x-5)$