

17. $y \geq 3x^2$

18. $y \leq -x^2$

19. $y > -x^2 + 5$

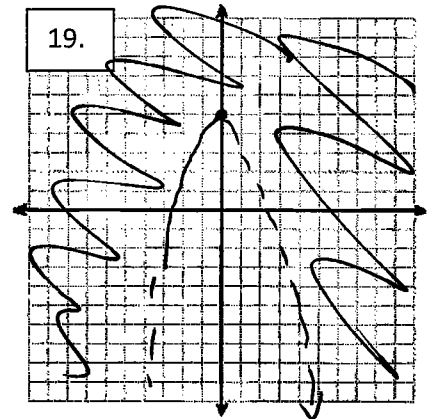
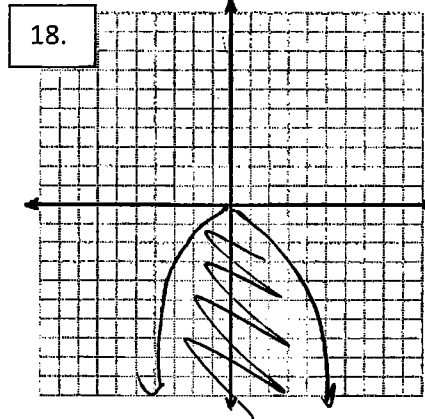
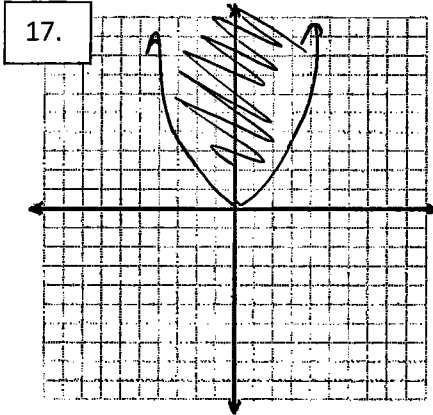
20. $y < x^2 - 3x$

21. $y \leq x^2 + 8x + 16$

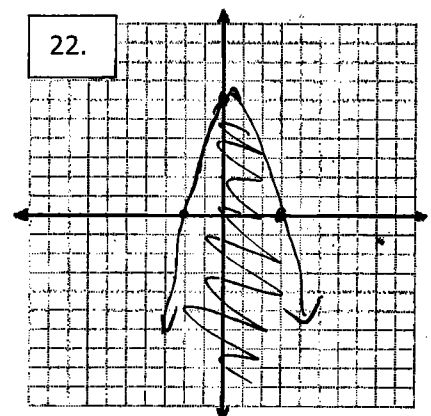
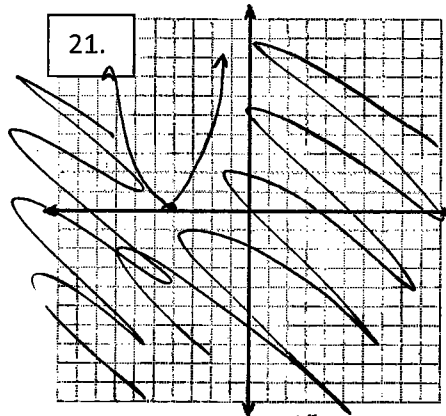
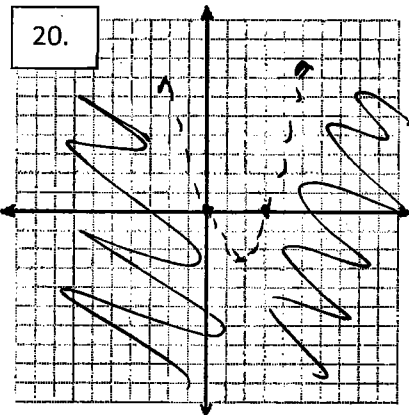
22. $y \leq -x^2 + x + 6$

$-(x^2 - x - 6)$
 $-(x - 3)(x + 2)$

Graph each of these. It should help if you find AOS, Vertex, Y-int, and X-int(s).

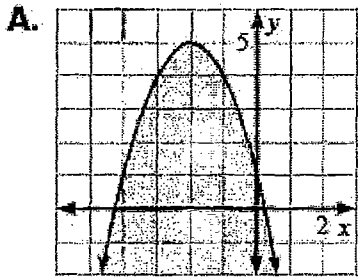


$x(x - 3)$



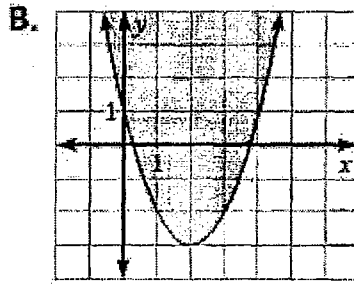
MATCHING GRAPHS Match the inequality with its graph.

14. $y \geq x^2 - 4x + 1$



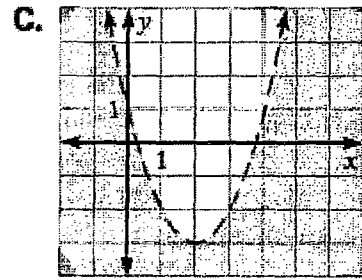
~~16~~

15. $y < x^2 - 4x + 1$



14

16. $y \leq -x^2 - 4x + 1$



15

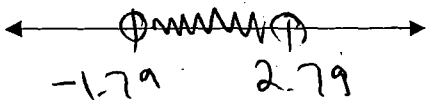
SOLVING ALGEBRAICALLY Solve the inequality algebraically.

38. $-x^2 + x + 5 > 0$

$-(x^2 - x - 5) > 0$
not factorable

$-x^2 + x + 5 = 0$

$$\frac{-1 \pm \sqrt{(-1)^2 - 4(-1)(5)}}{2(-1)}$$



$x = -1.79$

$x = 2.79$

39. $3x^2 + 24x \geq -41$

$3x^2 + 24x + 41 = 0$

Quad form

$x = -5.53$ $x = -2.47$

