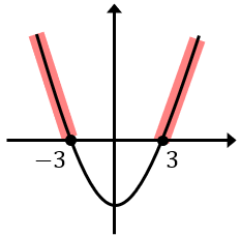
Solving Quadratic Inequalities

Use the partially completed quadratic sketches to solve the inequalities given:

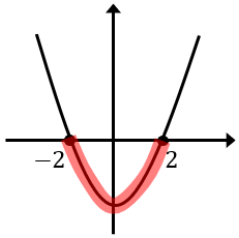
(a)



$x^2 - 9 > 0$

$(x + 3)(x - 3) > 0$

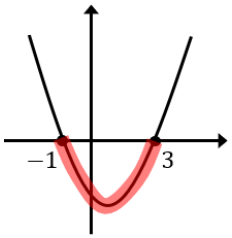
(b)



$x^2 - 4 \leq 0$

$(x + 2)(x - 2) \leq 0$

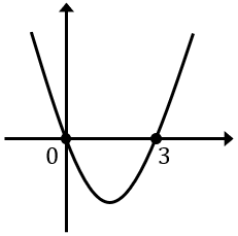
(c)



$x^2 - 2x - 3 < 0$

$(x + 1)(x - 3) < 0$

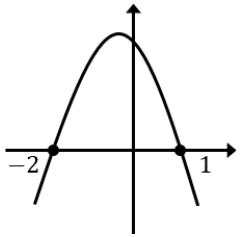
(d)



$x^2 - 3x \geq 0$

$x(x - 3) \geq 0$

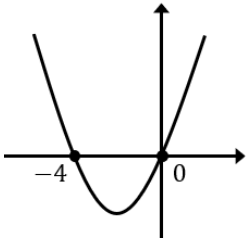
(e)



$2 - x - x^2 > 0$

$(2 + x)(1 - x) > 0$

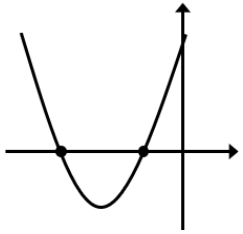
(f)



$x^2 + 4x < 0$

$x(x + 4) < 0$

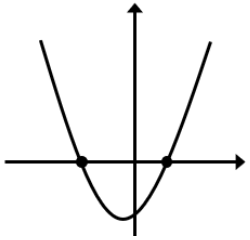
(g)



$x^2 + 7x + 10 \leq 0$

$(x + 5)(x + 2) \leq 0$

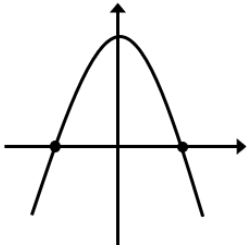
(h)



$x^2 + x - 6 \geq 0$

$(x + 3)(x - 2) \geq 0$

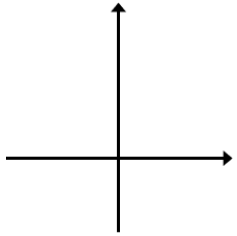
(i)



$16 - x^2 > 0$

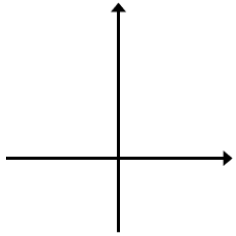
$(4 + x)(4 - x) > 0$

(j)



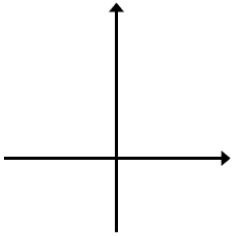
$x^2 + 2x < 0$

(k)



$x^2 - 6x + 8 > 0$

(l)



$6 - x - x^2 \leq 0$