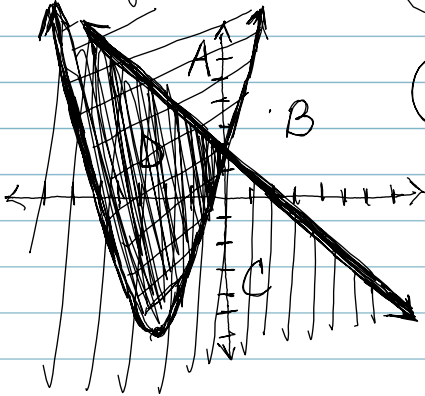


Lesson 114: Nonlinear inequalities

A or B

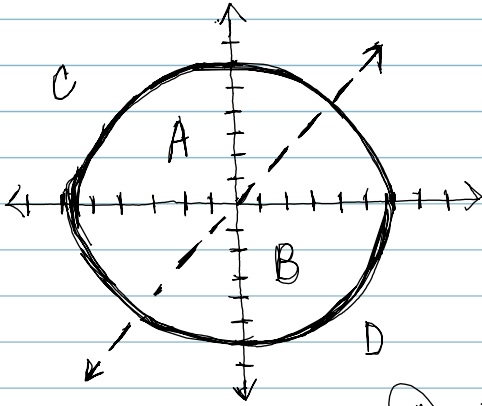
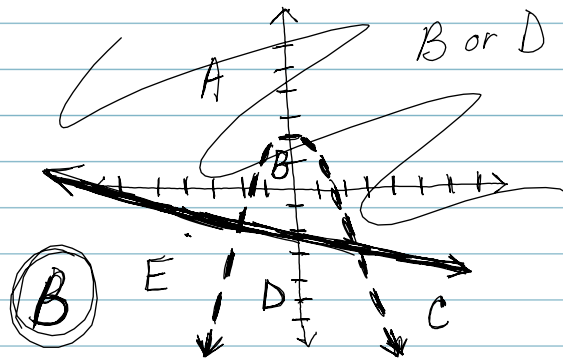
1)
$$\begin{cases} y \geq x^2 + 6x + 3 \\ y \leq -x + 2 \end{cases}$$

(A or D)
(D or C)



2)
$$\begin{cases} y \geq -\frac{1}{4}x - \frac{5}{2} \text{ (line)} \\ y < -x^2 + 2 \text{ (parabola)} \end{cases}$$

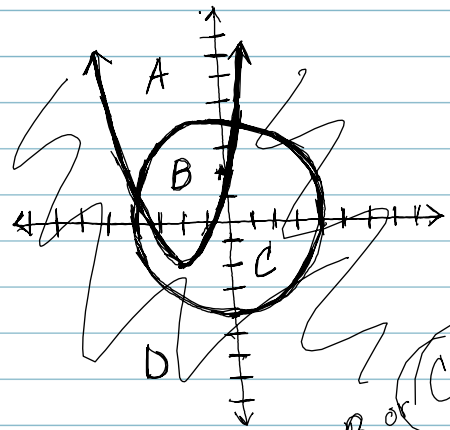
B or D



3.)
$$\begin{cases} x^2 + y^2 \leq 36 \\ y > x \end{cases}$$

A or B
C or A

(A)



4.)
$$\begin{cases} x^2 + y^2 \leq 16 \text{ (circle)} \\ y \leq x^2 + 4x + 2 \text{ (parabola)} \end{cases}$$

B or C

(C)

(C) or D