B.4 Solving Inequalities Algebraically and Graphically

Ex. ① Suppose that Sam is a teenager whose age is x.

Write a compound inequality for x.

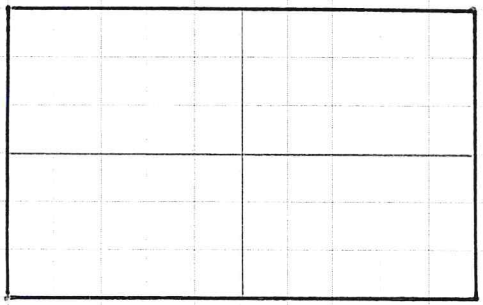
Solution:

Ex. ② Solve: $-11 \leq 5 - 3x < 13$ algebraically

Ex. ③ Solve: $x^2 - 3x \geq 4$ graphically

Zero Form:

Graph Y1 =



Window: $[-5, 5] \times [-10, 10]$

Solution

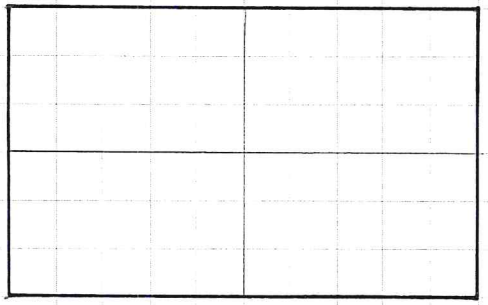
Interval Notation:

Graph:

Ex. ④ Solve: $x^3 - 3x^2 > x - 3$ graphically

Zero Form:

Graph $Y1 =$



Window: $[-5,5] \times [-5,5]$

Solution:

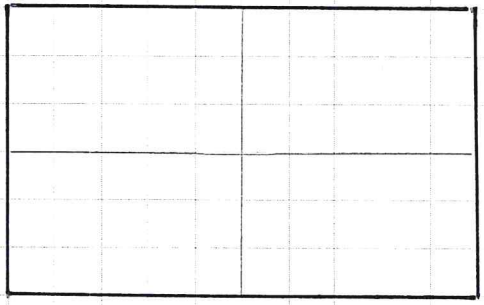
Interval Notation:

Graph:

Ex. ⑤ Solve: $\frac{x+6}{x+1} \geq 2$ graphically

Zero Form:

Graph $Y_1 =$



Standard Window

Solution:

Interval Notation:

Graph: