Solving Equations Graphically

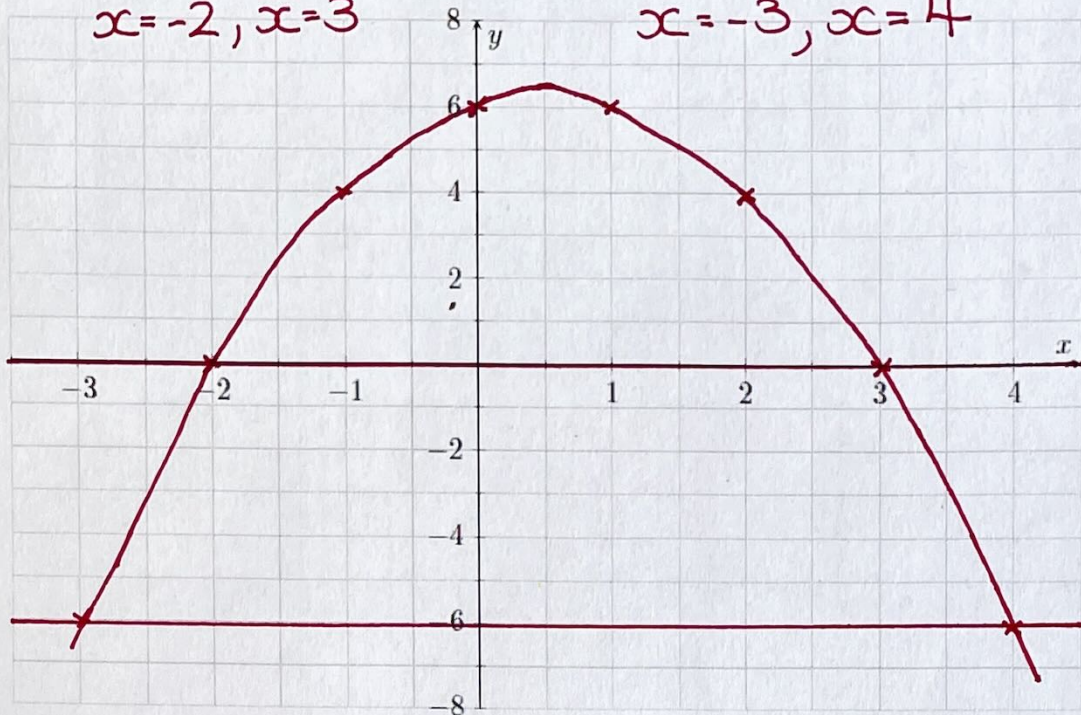## (a)

Plot the graph of $y = 6 + x - x^2$. Use the graph to find the solutions to equation

    (a) $6 + x - x^2 = 0$ (b) $6 + x - x^2 = -6$

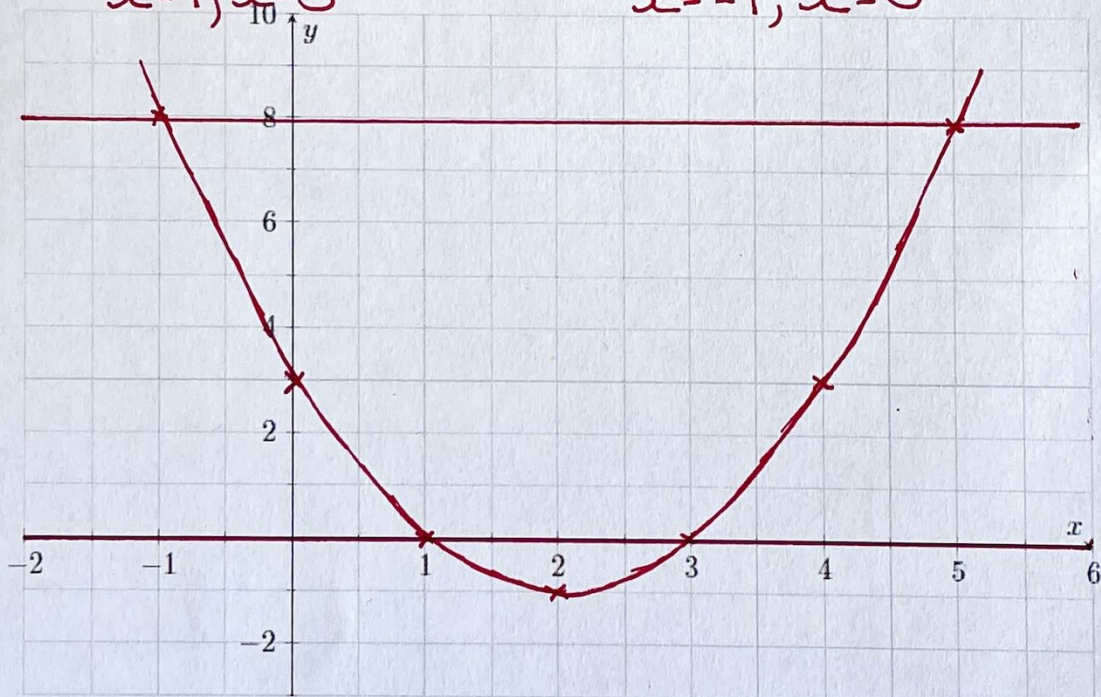 $x = -2, x = 3$ $x = -3, x = 4$

(b)

Plot the graph of $y = x^2 - 4x + 3$. Use the graph to find the solutions to equation

    (a) $x^2 - 4x + 3 = 0$ (b) $x^2 - 4x + 3 = 8$

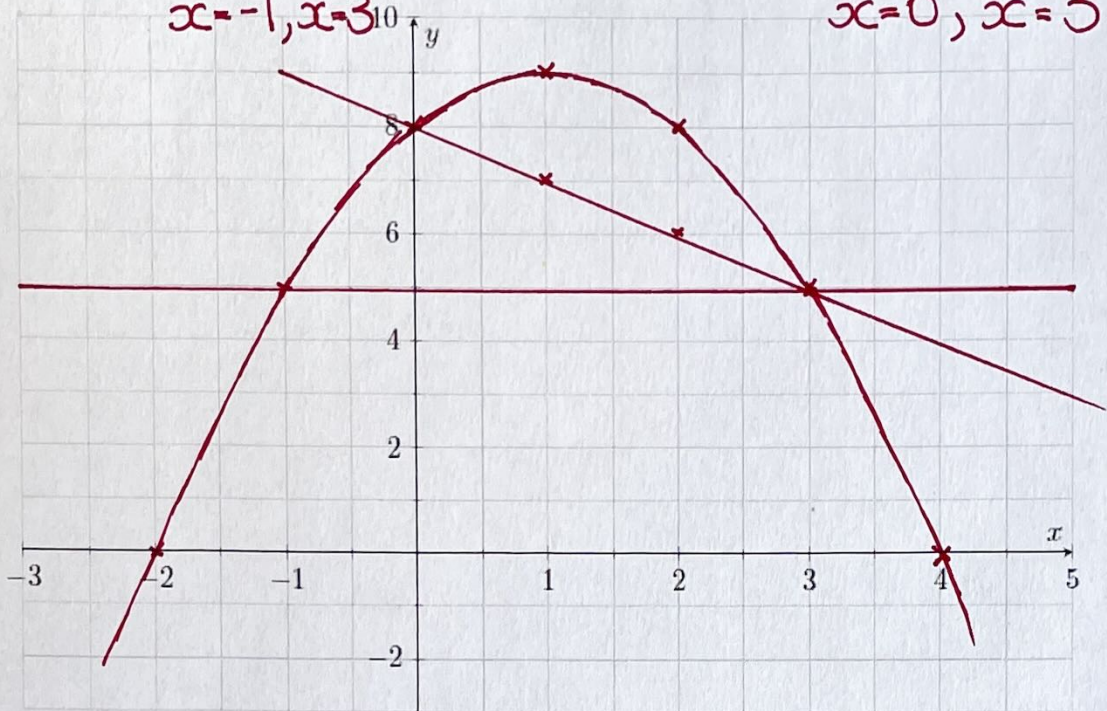 $x = 1, x = 3$ $x = -1, x = 5$

(c)

Plot the graph of $y = 8 + 2x - x^2$. Use the graph to find the solutions to the equation

(a) $8 + 2x - x^2 = 5$

$x = -1, x = 3$

(b) $8 + 2x - x^2 = 8 - x$

$x = 0, x = 3$

(d)

Plot the graph of $y = x^3 - 3x$. Use the graph to estimate the solutions to the equation

(a) $x^3 - 3x = 1$

$x = -1.6, x = 1.8, x = -0.3$

(b) $x^3 - 3x = x + 1$

$x = -1.8$
$x = -0.2$
$x = 2.2$