
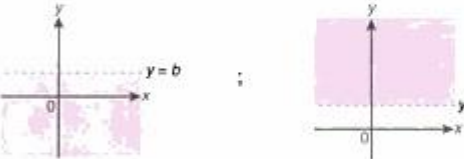
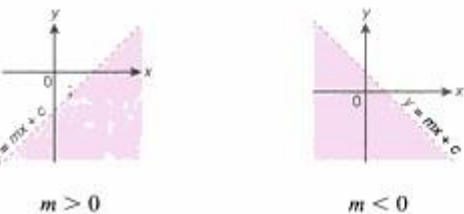
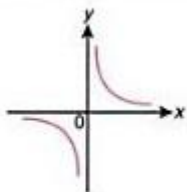
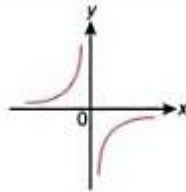
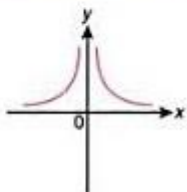
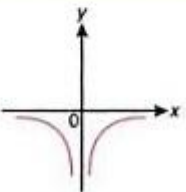
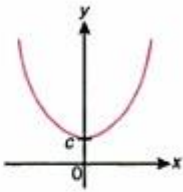
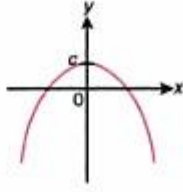
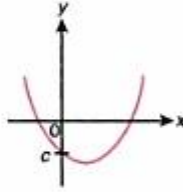
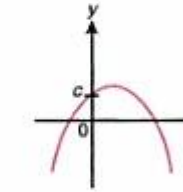
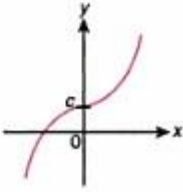
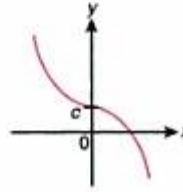


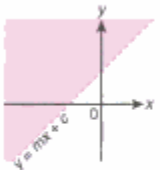

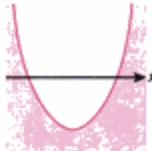
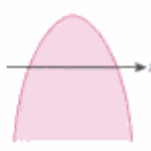
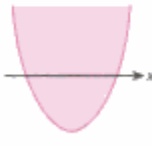
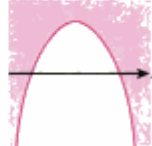
CHAPTER 2: GRAPH FUNCTIONS II

These are all the important graph need to be understand in order to answer questions in this topic.

Inequality	Region
$x < a ; x > a$	 <p>The first graph shows a vertical dashed line at $x = a$ on a Cartesian coordinate system. The region to the left of this line is shaded pink, representing $x < a$. The second graph shows a vertical dashed line at $x = a$. The region to the right of this line is shaded pink, representing $x > a$.</p>
$y < b ; y > b$	 <p>The first graph shows a horizontal dashed line at $y = b$. The region below this line is shaded pink, representing $y < b$. The second graph shows a horizontal dashed line at $y = b$. The region above this line is shaded pink, representing $y > b$.</p>
$y < mx + c$	 <p>The first graph shows a solid line with a positive slope $m > 0$ and y-intercept c. The region below the line is shaded pink, representing $y < mx + c$. The second graph shows a solid line with a negative slope $m < 0$ and y-intercept c. The region below the line is shaded pink, representing $y < mx + c$.</p>

Functions	When $a > 0$	When $a < 0$
Inverse $y = \frac{a}{x}$	 <p>The graph shows two hyperbolic branches in the first and third quadrants, with the x-axis and y-axis as asymptotes.</p>	 <p>The graph shows two hyperbolic branches in the second and fourth quadrants, with the x-axis and y-axis as asymptotes.</p>
$y = \frac{a}{x^2}$	 <p>The graph shows two hyperbolic branches in the first and second quadrants, with the x-axis and y-axis as asymptotes.</p>	 <p>The graph shows two hyperbolic branches in the third and fourth quadrants, with the x-axis and y-axis as asymptotes.</p>

Functions	When $a > 0$	When $a < 0$
Quadratic $y = ax^2 + c$		
$y = ax^2 + bx + c$		
Cubic $y = ax^3 + c$		

Inequality	Region
$y > mx + c$	 ;  $m > 0$ $m < 0$
$y \leq ax^2 + bx + c$	 ;  $a > 0$ $a < 0$
$y \geq ax^2 + bx + c$	 ;  $a > 0$ $a < 0$