Additional Prerequisites for Calculus

1. **Even and Odd functions:**



 c) $f\left(x\right)=5x^{2}-3$ d) $k\left(x\right)=\left(x+1\right)\left(3x-3\right)$

1. **Piecewise functions:**



Hwk: worksheet + p 19 # 21 - 34

1. **One to one functions:**



 Note: A function that is always increasing\* is one to one.
 A function that is always decreasing\* is one to one.

Hwk: worksheet + p 44 # 1 – 6,13 – 24,52,53
 extend: p 45 # 59,60,62.

1. **Trigonometric inverse functions:**$y=sinx$ $y=sin^{-1}x$  $y=cosx$ $y=cos^{-1}x$  $y=tanx$ $y=tan^{-1}x$  
$y=cscx$ $y=secx$ $y=cotx$
  
2. **The Greatest Integer Function:**The Greatest Integer Function is denoted by y = [x] or $y=Int(x)$.

For all real numbers, x, the **greatest integer function** returns the largest integer
less than or equal to x. In essence, it rounds down a real number to the nearest integer.

For example:   [1] = 1      [1.5] = 1      [3.7] = 3      [4.3] = 4
Beware!    [-2] = -2      [-1.6] = -2      [-2.1] = -3      [-5.5] = -6

 

1. **Usual shapes areas and volumes:**

