**3B Mean Value of a Function**

 

 

 

1. Find the mean value of $f\left(x\right)=\frac{4}{\sqrt{2+3x}}$ in the interval $\left[2,6\right]$.
2. Given that $f\left(x\right)=\frac{4}{1+e^{x}}$
3. Show that the mean value of $f(x)$ on the interval $\left[ln2, ln6\right]$ is

$$\frac{4ln\frac{9}{7}}{ln3}$$

1. Use your answer to part a) to find the mean value of $f\left(x\right)+4$ over the interval $\left[ln2,ln6\right]$
2. Use geometric considerations to write down the mean value of $y=-f(x)$ over the interval $\left[ln2,ln6\right]$

In General:

Vertical Transformations:

Horizontal Transformations: