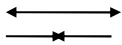

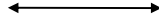


h(x) Summary Sheet

MATH by Wilson
Your Personal Mathematics Trainer
MathByWilson.com



B : Domain Effect Horizontal 


Horizontal *Contraction* Horizontal *Stretch*
when $|B| > 1$ when $0 < |B| < 1$


 

Reflection in $x = -\frac{C}{B}$ when $B < 0$

D : Range Effect
Vertical
Translation



 
 $|D|$ units *upward*
when $D > 0$



 $|D|$ units *downward*
when $D < 0$




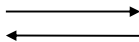
$$h(x) = A * f(B * x + C) + D$$


A : Range Effect
Vertical


 
Vertical *stretch* when $|A| > 1$


Vertical *contraction* when $0 < |A| < 1$


Reflection in $y = 0$ when $A < 0$

C : Domain Effect Horizontal
Translation 

$\left| \frac{C}{B} \right|$ units to the *right* when $\frac{C}{B} < 0$


$\left| \frac{C}{B} \right|$ units to the *left* when $\frac{C}{B} > 0$


Order: $f \rightarrow h$

$$f(x) \rightarrow f(Bx) \rightarrow f(Bx + C) \rightarrow Af(Bx + C) \rightarrow Af(Bx + C) + D = h(x)$$