# Rate of Climb formula:

**ROC = V (T – D) / W = TV – DV / W**

Note:

* TV = Power available from the engine.
* DV = Power required by the airframe.
* TV – DV equals the excess power available to increase the altitude.

The above relationship can be interpreted as the ROC depends upon the difference between the Power Available (TV) and the Power Required (DV) or the Excess Power. (Refer to the power curves for more information about this)

It should also be noted that the kinematics of bodies in motion requires that True Air Speed (TAS) is used in performance calculations.