

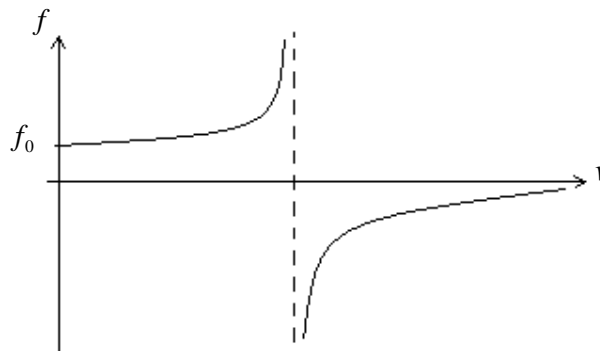
How Nature Deals with Mathematical Infinities

António Saraiva – 2008-03-08
ajps2@hotmail.com

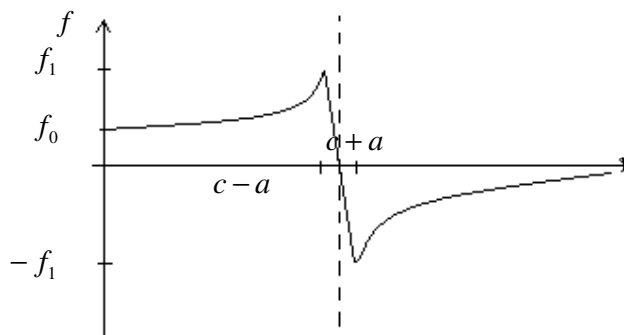
Doppler effect for sound:

$$f = f_0 \frac{c}{c - v} \quad (\text{Frequency means energy})$$

Mathematical graphic



Real graphic



$$y = mv + f_n \quad \Leftrightarrow \quad y = -\frac{f_1}{a}(c - v)$$

where f_n is the value of y for $v=0$, $f_{1=}$ is the maximum of the curve, $c+a$ and $c-a$ are the values of v for maximums

The real graphic gives a simple explanation for the double sonic boom.