



[Math Processing Error]

then the perpendicular distance from a focus to an asymptote is just  $b$ .

This equation is the same (including scale) as

[Math Processing Error]

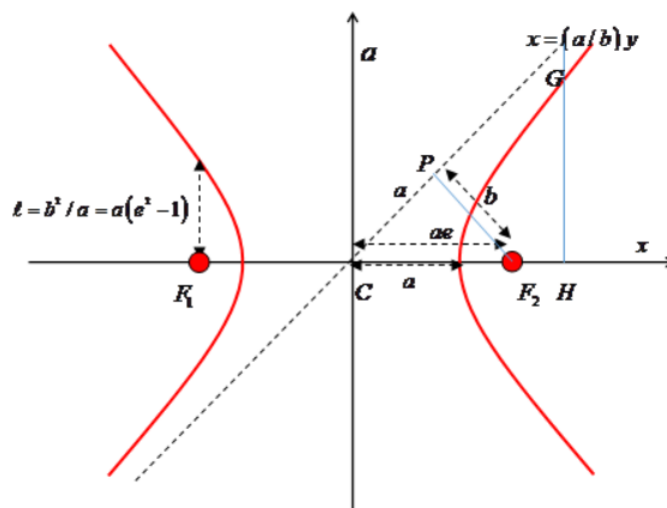


Figure [Math Processing Error]

Proof: The triangle [Math Processing Error] is similar to triangle [Math Processing Error] and since the square of the hypotenuse [Math Processing Error]

I find this a surprising result because in analyzing Rutherford scattering (and other scattering) the impact parameter, the distance of the ingoing particle path from a parallel line through the scattering center, is denoted by [Math Processing Error]. Surely this can't be a coincidence? But I can't find anywhere that this was the original motivation for the notation.

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