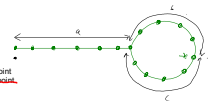


$$\frac{f(x)}{g(x)} = \frac{f(x)g(x) - f(x)g'(x)}{(g(x))^2}$$

$$h=1$$



1. n is no of cycles by first before meeting point
2. m is no of cycles by slow before meeting point
3. a is length of tail
4. g point is meeting Point

$$\begin{aligned} a &= ? \\ c &= ? \\ c &= ? \\ m &= ? \\ h &= ? \end{aligned}$$

$$\begin{aligned} d_R &= a + (b+1)n + b \\ d_g &= a + (b+1)m + b \end{aligned}$$

$$a + (b+1)n + b = a + (b+1)m + b$$

$$x = \left(\frac{v_R}{v_G} \right)$$

$$(a+b) = (b+1)(n-2m)$$

$$\boxed{a+b = (b+1)n}$$

$$\boxed{b = (b+1)(n-2m)}$$

$$\begin{aligned} (b+1)(n-m) &= (a+b)(x+1) \\ \boxed{a+b} &= \frac{(b+1)(n-m)}{(x+1)} \end{aligned}$$

$$\begin{aligned} x+1 &\neq 0 \quad \delta \delta \quad x+1 < 0 \quad \text{or } \delta \delta \quad x+1 > 0 \\ x &> 1 \quad ; \quad (x \in \mathbb{R}, x \neq 1) \\ (v_R > v_G) \end{aligned}$$

$$(a+b) = \frac{(b+1)(n-m)}{(x+1)}$$

$$0 = (b+1)(n-m) - (b+1)(m)(x+1)$$

$$-(b+1)m(x+1) = (b+1)(n-m)$$

$$-(b+1)m = (b+1)(n-2m)$$

$$-m = n - 2m$$

$$\boxed{m = n}$$