

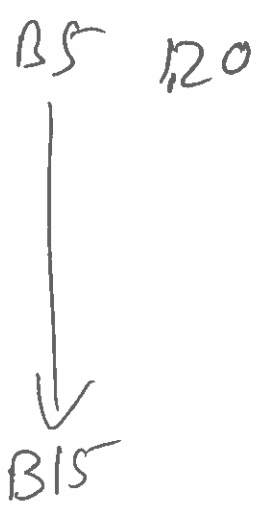
row dist

Actual dist

Intensity

$\ln(\text{dist})$   
Formula

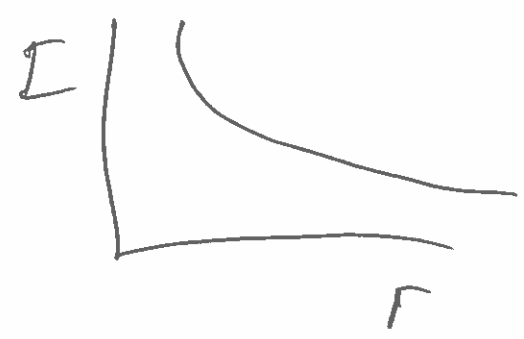
$\ln(\text{Int})$   
Formula



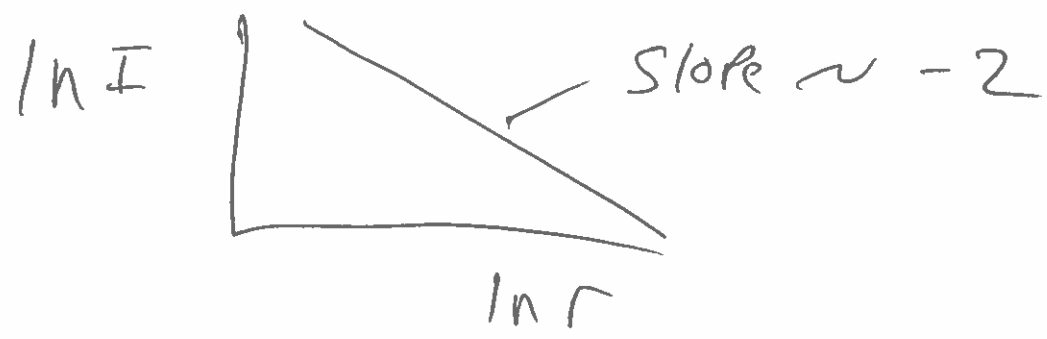
Formula  
 $= BS - \frac{BS}{3}$

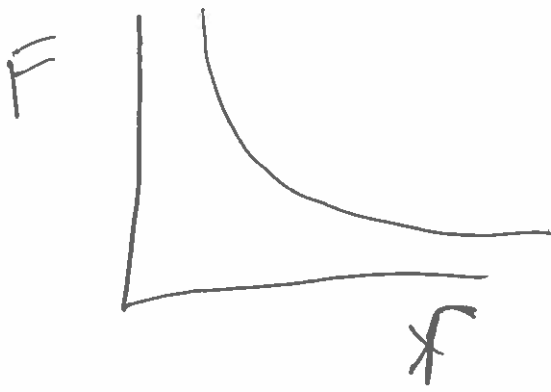
$I \propto \frac{1}{r^2}$

$I = A r^{-2}$



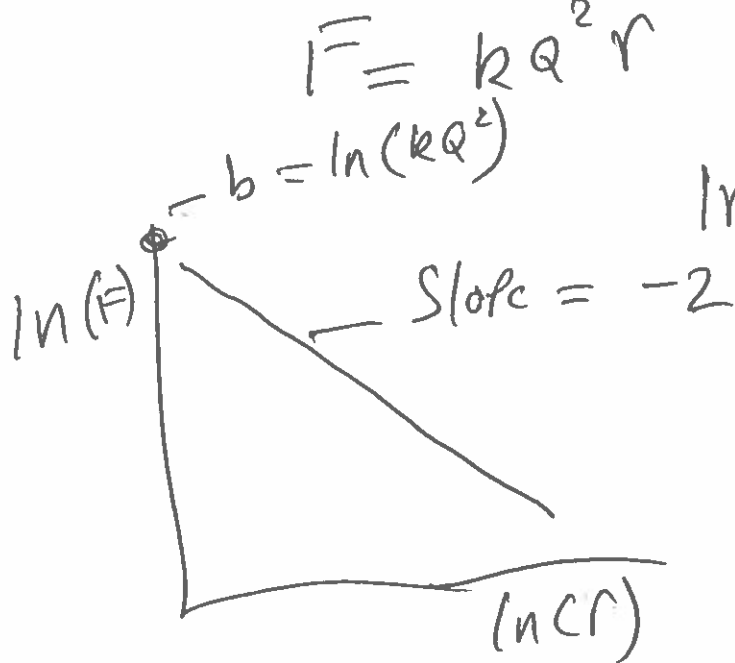
$\ln(I) = -2 \ln(r) + \ln(A)$





$$F = \frac{kQq}{r^2} = \frac{kQ^2}{r^2}$$

$$F = kQ^2 r^{-2}$$



$$\ln(F) = -2 \ln(r) + \ln(kQ^2)$$

$$b = \ln(kQ^2)$$

$$e^b = kQ^2$$

$$Q = \sqrt{\frac{e^b}{k}}$$

$$k = 8.99 \times 10^9 \frac{\text{Nm}^2}{\text{C}^2}$$