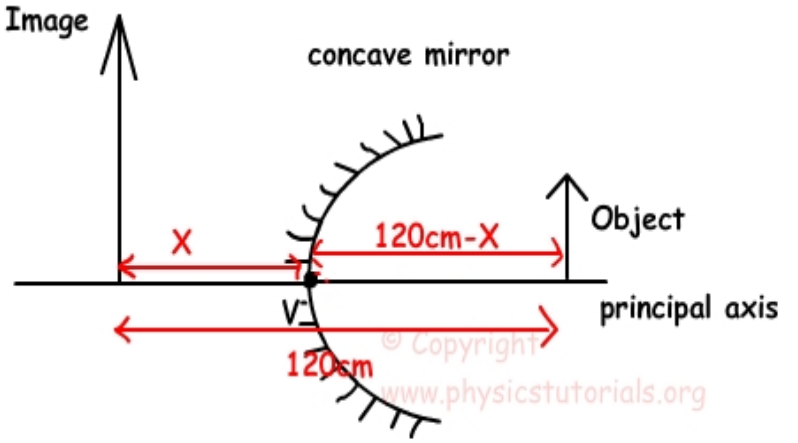

where;
Hi=height of the image
Ho=height of the object
Di=distance between image and mirror
Do=distance between object and miror

$Hi=3Ho$

$\frac{Hi}{Ho}=\frac{Di}{Do}=3$ Where, Di=X and Do=120-X

$Di=3Do$

$X=3(120-X)$

$X=Di=90cm$

$Do=30cm$

$\frac{1}{f}=\frac{1}{Do}+\frac{1}{Di}$

$\frac{1}{f}=\frac{1}{30cm}-\frac{1}{90cm}$ (Since image is formed behind the mirror we put "-" sign in front of it.)

$f=45cm$