Image

concave mirror

X   120cm-X   ↑ Object

where;
Hi=height of the image

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

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