When an object is placed at a distance of 30 cm from a convex lens, a real image is formed at a distance of 60 cm. What is the focal length of lens?

Ans) $u = -30$ cm, $v = 60$ cm, $f = ?$

$$f = \frac{uv}{u-v} = \frac{-30 \times 60}{-30 - 60} = \frac{+1800}{+90} = 20 \text{ cm}$$

$$f = 20 \text{ cm}$$