$$6 = \frac{d\left(\frac{k}{L}\right)\left(\frac{k}{L}\right)}{d\left(\frac{dk}{dL}\right)\left(\left(\frac{dk}{dL}\right)\right)} = \frac{din\left(\frac{k}{L}\right)}{din\left(MRTS\right)} = \frac{din\left(\frac{k}{L}\right)}{din\left(\frac{k}{L}\right)} = 1$$

(b)
$$6 = \frac{\dim(\frac{k}{L})}{\dim(MRTS)} = \frac{\dim(\frac{k}{L})}{\dim(\frac{k}{L})} = \infty$$