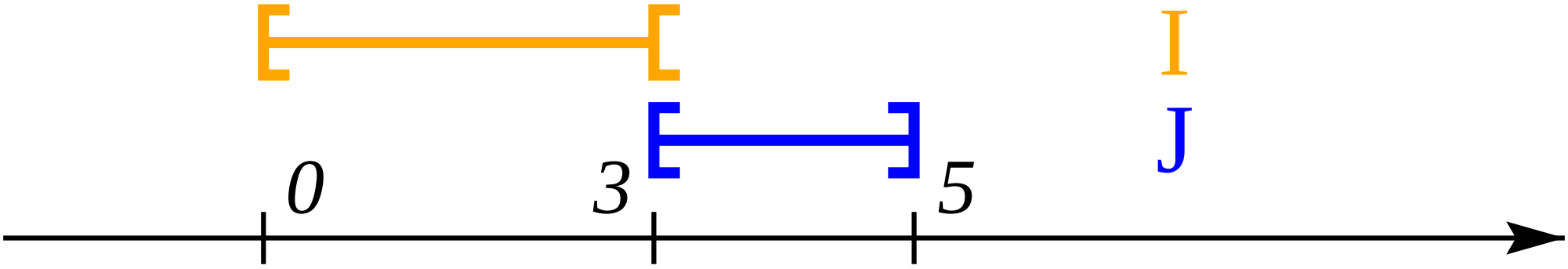

$$I \cap J = \varnothing$$

$$I \cup J$$