

$$f^{-1}(\{\heartsuit\}) \subset X$$

$$f^{-1}(\{\spadesuit\}) \subset X$$

$$f^{-1}(\{\star\}) \subset X$$

$$f : X \rightarrow Y$$

Y

$$f_*\mu(\{\heartsuit\}) = \mu(f^{-1}(\{\heartsuit\}))$$

$$f_*\mu(\{\spadesuit\}) = \mu(f^{-1}(\{\spadesuit\}))$$

$$f_*\mu(\{\star\}) = \mu(f^{-1}(\{\star\}))$$