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Part (c) is often used in counting problems: if we want to find |A| for some set A, we find a bijection  $A \rightarrow B$  for a set B for which we know |B|.

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#### Example:

 $\begin{array}{l} f: \{1,2,3\} \rightarrow \{ \text{red, blue, green} \}, \\ f(1) = \text{red, } f(2) = \text{green, } f(3) = \text{red.} \end{array}$ 

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$$f({1,2}) = {red, green}.$$

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Example:

 $f:\mathbb{R}\to\mathbb{R},\,f(x)=x^2.$ 

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