$1 \text{ NZ} = $0.95 \text{ AUS}. \text{ Write a program which converts }$500 \text{ NZ} \text{ to Australian dollars and converts }$500 \text{ AUS} \text{ to New Zealand dollars using the above exchange rate. The output of the program should be:}

```
amount_to_convert = 500
nz_to_aus_rate = 0.95
nz_dollars = amount_to_convert
aus_dollars = nz_dollars * nz_to_aus_rate
print("NZ $", nz_dollars, " = ", "AUS $", aus_dollars, sep = "")

aus_dollars = amount_to_convert
aus_to_nz_rate = 1 / nz_to_aus_rate
nz_dollars = aus_dollars * aus_to_nz_rate
print("AUS $", aus_dollars, " = ", "NZ $", nz_dollars, sep = "")
```

NZ $500 = AUS $475.0
AUS $500 = NZ $526.3157894736842