

Definition 1. The function **Reverse** pairs a string of letters with the same string, but the letters listed in reverse order.

- The domain of **Reverse** is all strings of letters in the English alphabet.
- The codomain of **Reverse** is all strings of letters in the English alphabet.
- The pair $(\text{string1}, \text{string2})$ is a member of the **Reverse** function if string2 is string1 backwards.

Exercise 1 $\text{Reverse}(\text{"bike"}) = \boxed{\text{"ekib"}}$

Exercise 2 $\text{Reverse}(\text{"mrots"}) = \boxed{\text{"storm"}}$

Exercise 3 $\text{Reverse}(\text{"week"}) = \boxed{\text{"keew"}}$

Exercise 4 Does the range of **Reverse** equal the codomain.

Multiple Choice:

- (a) Yes ✓
- (b) No

Feedback (attempt): Any string can be reversed.

Exercise 5 If string1 and string2 are two different strings of letters, then is it possible for $\text{Reverse}(\text{string1}) = \text{Reverse}(\text{string2})$?

Multiple Choice:

- (a) Yes
- (b) No ✓

Feedback (attempt): If the reversal of two strings are equal, then the original strings have to be equal.

Exercise 6 How many solutions does $\text{Reverse}(\text{string}) = \text{"school"}$? have? 1

Feedback (attempt): "loohcs" is the only solution.

Exercise 7 Is it possible for $\text{Reverse}(\text{string}) = \text{string}$?

Multiple Choice:

- (a) Yes ✓
- (b) No

Feedback (attempt): Example: $\text{Reverse}(\text{"dad"}) = \text{"dad"}$

Exercise 8 Does the equation $\text{Reverse}(\text{Reverse}(\text{string})) = \text{string}$ have any solutions?

Multiple Choice:

- (a) Yes ✓
- (b) No

Feedback (attempt): The solution set is the whole domain. The reversal of the reversal of any string results in the original string.
