

## Word Ladders

In order to do many of the operations and processes in mathematics, we need to follow certain rules. There are rules for addition, subtraction, multiplication, division, decimals, solving equations, proving trig identities, etc.

Lewis Carroll came up with the idea of word ladders.

There is only one RULE:

Change ONLY one letter at a time and form a new word at each step.

Some of the following word ladders (#7 - #11) are from Lewis Carroll.

- #1 Change LOOP to POOL
- #2 Change FIND to LOSE
- #3 Change MAN to NUT
- #4 Change LOVE to HATE
- #5 Change WARM to COLD
- #6 Change LARGE to SMALL
- #7 Change BLACK to WHITE
- #8 Change WHEAT to BREAD
- #9 Change TEARS to SMILE
- #10 Change PITCH to TENTS
- #11 Change FLOUR to BREAD
- #12 Change APE to MAN

*Games Magazine* held a contest in 1993 to create the longest possible word ladder - starting and ending with any words - in which each rung had a different new letter. Each step had to change a letter in a different position from that of the previous step.

The maximum length of 26 steps was achieved by over 150 entries. The winner was Connie Bruner of Weatherford, Texas. She changed SOAPS to FAQIH. *Webster's Third New International Dictionary* was the source for acceptable words.

See if you can do that!