122#1201 initial string \$122#1201 insert firsrt \$ \$\$122#1201 insert second \$

 $\$\$122\#1201> \qquad \text{initialize comparison to } X > Y \\ \$\$12c\#120b> \qquad \text{compare 2 with 1, } X > Y \\ \$\$1cc\#12ab> \qquad \text{compare 2 with 0, } X > Y \\ \$\$bcc\#1cab< \qquad \text{compare 1 with 2, } X < Y \\ \$\$bcc\#bcab< \qquad \text{compare 0 with 1, } X < Y$

\$\$122#1201# unmark X & Y, replace < with #
\$\$b22#1201#1 move 1 from X to end of tape
\$\$bc2#1201#12 move 2 from X to end of tape
\$\$bcc#1201#122 move 2 from X to end of tape

\$\$bcc#1201#122# X moved to end of tape, add # after it to mark where X-Y goes

\$\$bcc\$1201#122# change the # after original X to \$

 $$\c 120b\#12c\#2$ perform subtraction 1 – 2, insert result of 2 after # need to borrow

\$\$bcc\$112b#12c#2 after borrow

 $$\bcc$11cb#1cc#02$ perform subtraction 2 – 2, insert result of 0 after # perform subtraction 1 – 1, insert result of 0 after # perform subtraction 1 – 0, insert result of 1 after #

\$\$bcc\$bbcb#bcc-1002 replace # with - infront of the result, since symbol to the left of the right most \$ is not \$