

Concept Question 1-3: Is the shape of a waveform altered or preserved upon applying a time-shift transformation? Time-scaling transformation? Time-reversal transformation?

Time-shift transformation does not alter the shape of a waveform—it moves it back or forth along the t axis. Time-scaling transformation does alter the shape—it compresses or expands it along the t axis. Time-reversal transformation, which is a special case of time-scaling transformation, does alter the shape—it flips the waveform about the vertical axis.

