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- The timing diagram illustrates the operation of a 4-to-1 multiplexer. It features four input signals (A, B, C, D) and four output signals (Y1, Y2, Y3, Y4). Each input signal is inverted and then fed into a multiplexer. The multiplexers are represented by blocks with four inputs and one output. The output signals Y1, Y2, Y3, and Y4 are shown as horizontal lines. The diagram includes vertical lines indicating the timing of the signals and horizontal lines indicating the propagation of the signals through the multiplexers. The output signals Y1, Y2, Y3, and Y4 are shown as horizontal lines with asterisks indicating the timing of the signals.

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