

Name:

- (10 points) If the phase increment is 5.625 (decimal), what is its binary value in Q8.4 format?
- (10 points) At Time 2 (or two increments later), what does the **index.offset** become in decimal?
- (8 points) At Time 1 (or one increment later), what does the **index.offset** become in binary Q8.4?
- (8 points) At this Time 2, what **Base** value is output (assuming we are not interpolating) in Hex?
- (8 points) At this Time 2, what **Base** value is output (assuming we are not interpolating) in decimal?

- f. (8 points) At this Time 2, if we are interpolating using the **Output = Base + Offset*Delta** method, what are the two values in the BRAM LUT we are using to interpolate in between in hex?
- g. (8 points) At this Time 2, if we are interpolating using the **Output = Base + Offset*Delta** method, what are the two values in the BRAM LUT we are using to interpolate in between in decimal?
- h. (8 points) At this Time 2, if we are interpolating using the **Output = Base + Offset*Delta** method, what is the value of the **Offset** in decimal?
- i. (8 points) At this Time 2, if we are interpolating using the **Output = Base + Offset*Delta** method, what is the value of the **Offset** in binary?
- j. (8 points) At this Time 2, if we are interpolating using the **Output = Base + Offset*Delta** method, what is the value of the **Delta** in decimal?
- k. (8 points) At this Time 2, if we are interpolating using the **Output = Base + Offset*Delta** method, what is the final **Output** value in decimal? (assume answer is truncated to an integer)
- l. (8 points) At this Time 2, if we are interpolating using the **Output = Base + Offset*Delta** method, what is the final **Output** value in hex? (assume answer is truncated to an integer)