



7.6 Rhian and Shakira Exploring Period of the Sine Function (Clip 1) Transcript



Ms. Fye is using the [Introduction to the Sine Graph](#) Desmos Task in an in-person class.



[Rhian and Shakira Exploring Period of the Sine Function \(Clip 1\)](#)

Transcript:

[Students start on page 9 and then go to page 10 of the task. This page asks them to write an equation for a sine function given the amplitude is 3, the midline $y=-3$, and the period is 60.]

Rhian: Midline is.

Rhian: y equals.

Rhian: So that means it would be.....

Shakira: Negative—

Rhian: y equals....

Shakira: Negative two.

Rhian: I was gonna do the simple one and then we add the stuff to it.

[Student types $y=\sin(x)$ into the answer box on the page.]

Shakira: Mmhmm

(chattering in the background)

Rhian: x . And we know you have to subtract two

[Student types -2 at the end of what they had typed previously. They now have $y=\sin(x) - 2$.]

Rhian: because the midline went down

(chattering in the background)

Rhian: hmm

Rhian: Sin...amplitude is three.

Rhian: Amplitude was, oh.

[Student goes to slide 6 of the task that describes the amplitude.]

(chattering in background)

[Student goes to page 5 of the task and resets the graph with sliders to the original parameters $a=1$, $b=1$, and $k=0$. Student moves slider for k to -2 , then returns to slide 10 with the question.]

Rhian: So

Rhian: Midline is $y=-2$, period is 60.

Rhian: So we have to get it to 60 between those.

Rhian: So that means we have to make it smaller.

[Student begins dragging slider b . They stop at $b=2.1$ and select two maximums on the graph. The coordinates are (42.857, -1) and (214.296, -1).]

Rhian: I think we have to make it,

[Student drags slider for b to 3.6. Then they select two maximums with



coordinates (25,-1) and (125,-1).]

Rhian: That amp-, that period is 100

Rhian: so we have to make it....

[Student drags the slider for b to 5 and then stops on 6.]

Rhian: The midline is still too big.

Rhian: I think that's,

[Student continues dragging the slider for b and selects a maximum at (-45,-1) and hovers over another at (15,-1).]

Rhian: Yeah, that's 60.

Rhian: Wait, is that?

Rhian: Yeah that's 60.

Rhian: So b is six.