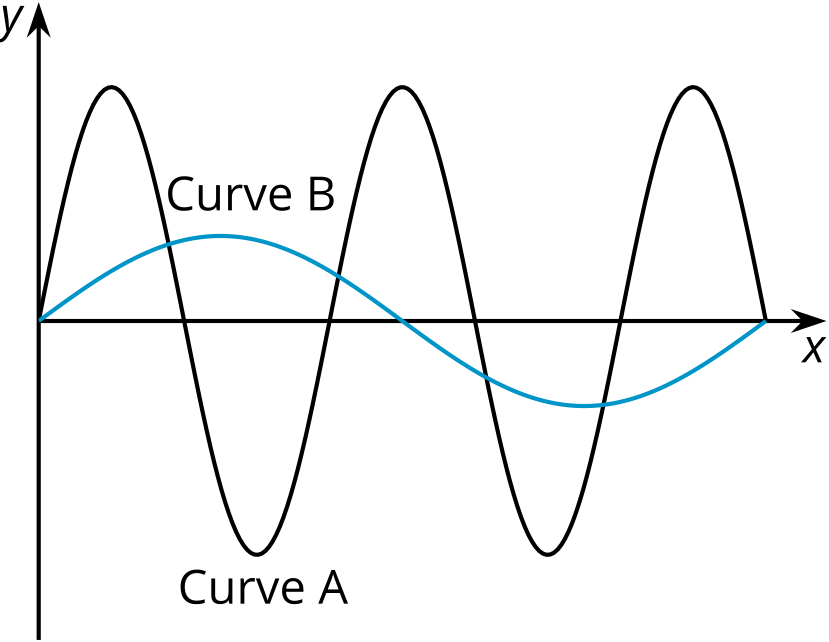
## Unit 6 Lesson 15: Features of Trigonometric Graphs (Part 1)

### 1 Notice and Wonder: Musical Notes (Warm up)

#### Student Task Statement

Here are pictures of sound waves for two different musical notes:



What do you notice? What do you wonder?

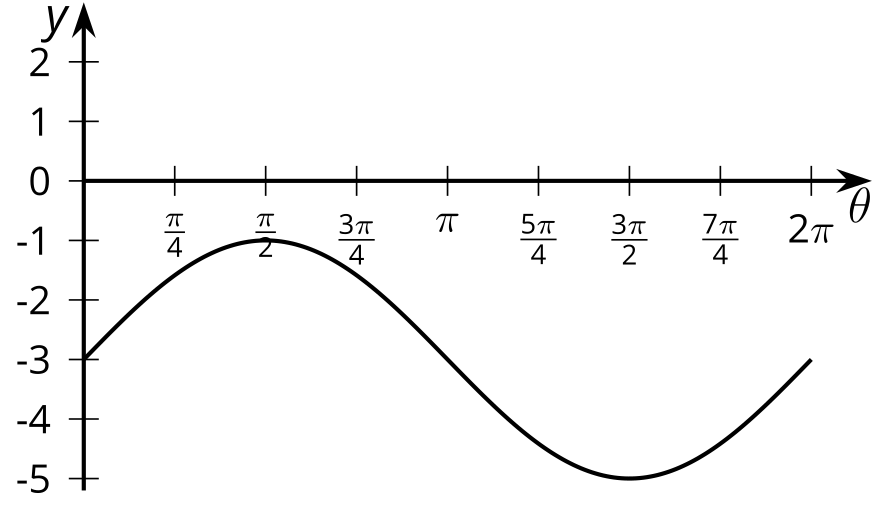
### 2 Equations and Graphs

#### Student Task Statement

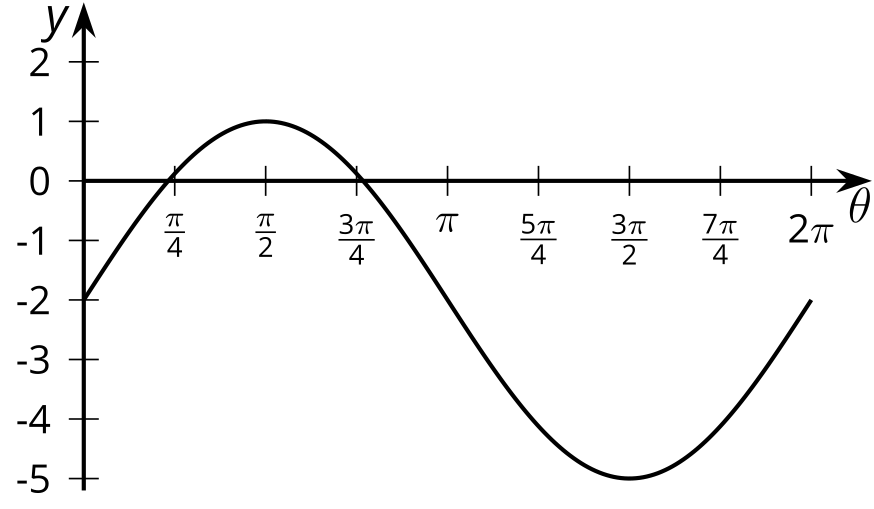
Match each equation with its graph. More than 1 equation can match the same graph.

Equations:

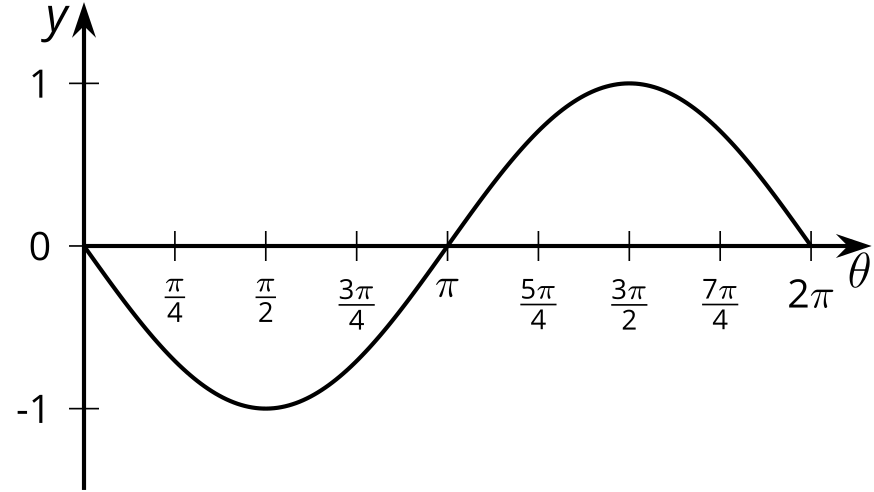
A



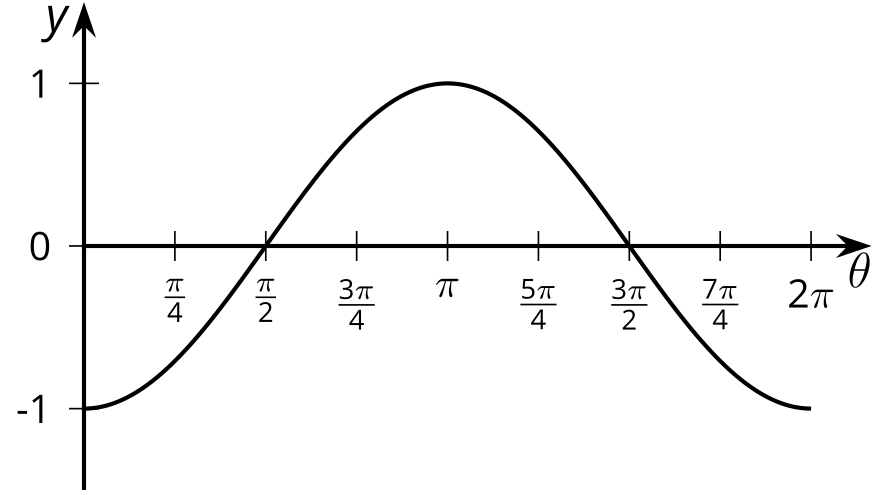
B



C



D



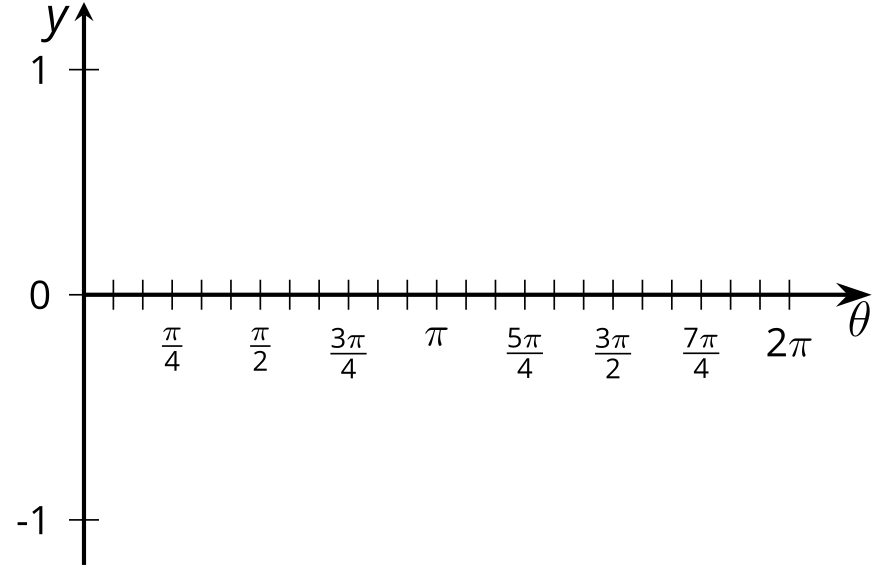
### 3 Double the Sine

#### Student Task Statement

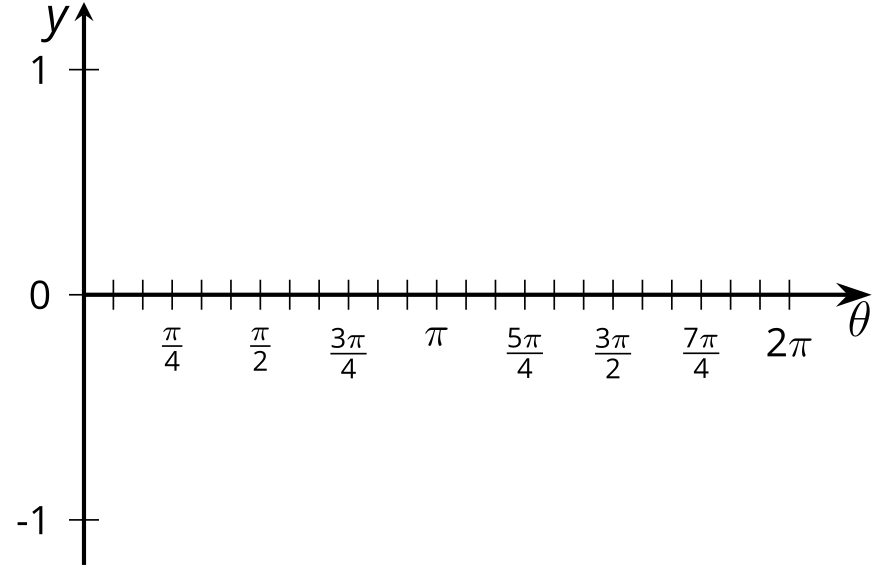
1. Complete the table of values for the expression

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | * 0 |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |

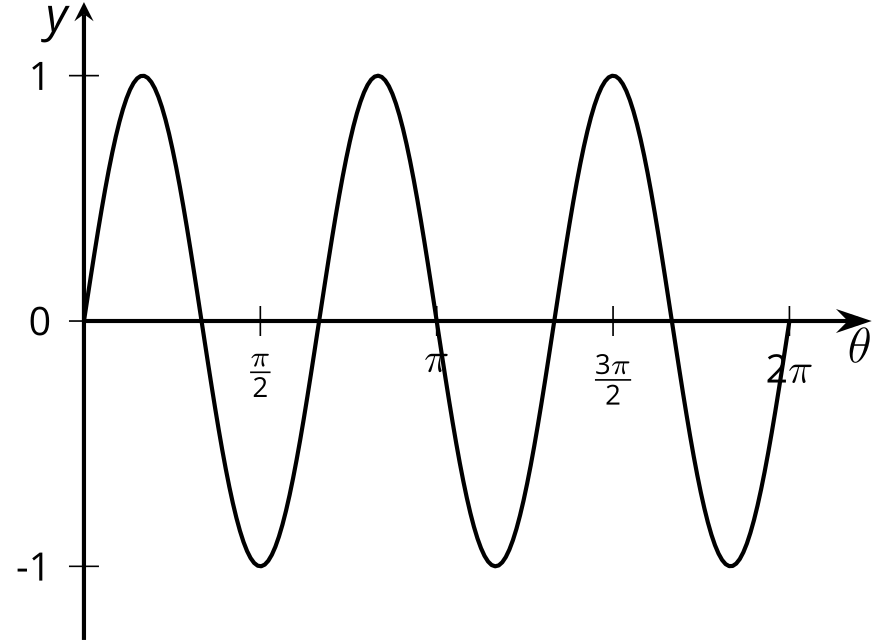
1. Plot the values and sketch a graph of the equation . How does the graph of compare to the graph of ?

* 

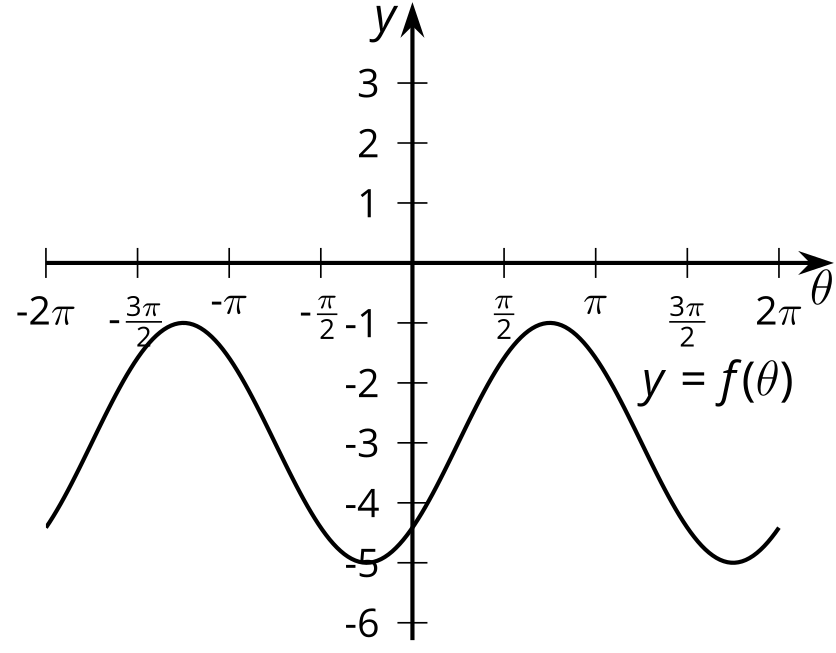
1. Predict what the graph of will look like and make a sketch. Explain your reasoning.

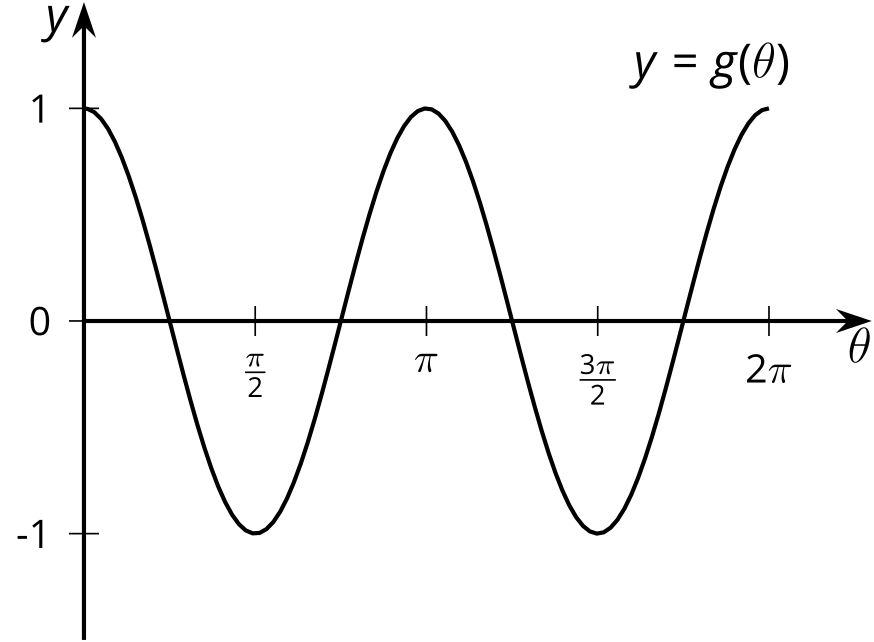
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#### Activity Synthesis



#### Images for Activity Synthesis







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