Additional Problems: Periodic Functions

**Phase Shifts**

**Some problems include the solution. Please remove before sharing with students.**

1. What is the phase shift of the function ?

\*\*Solution:

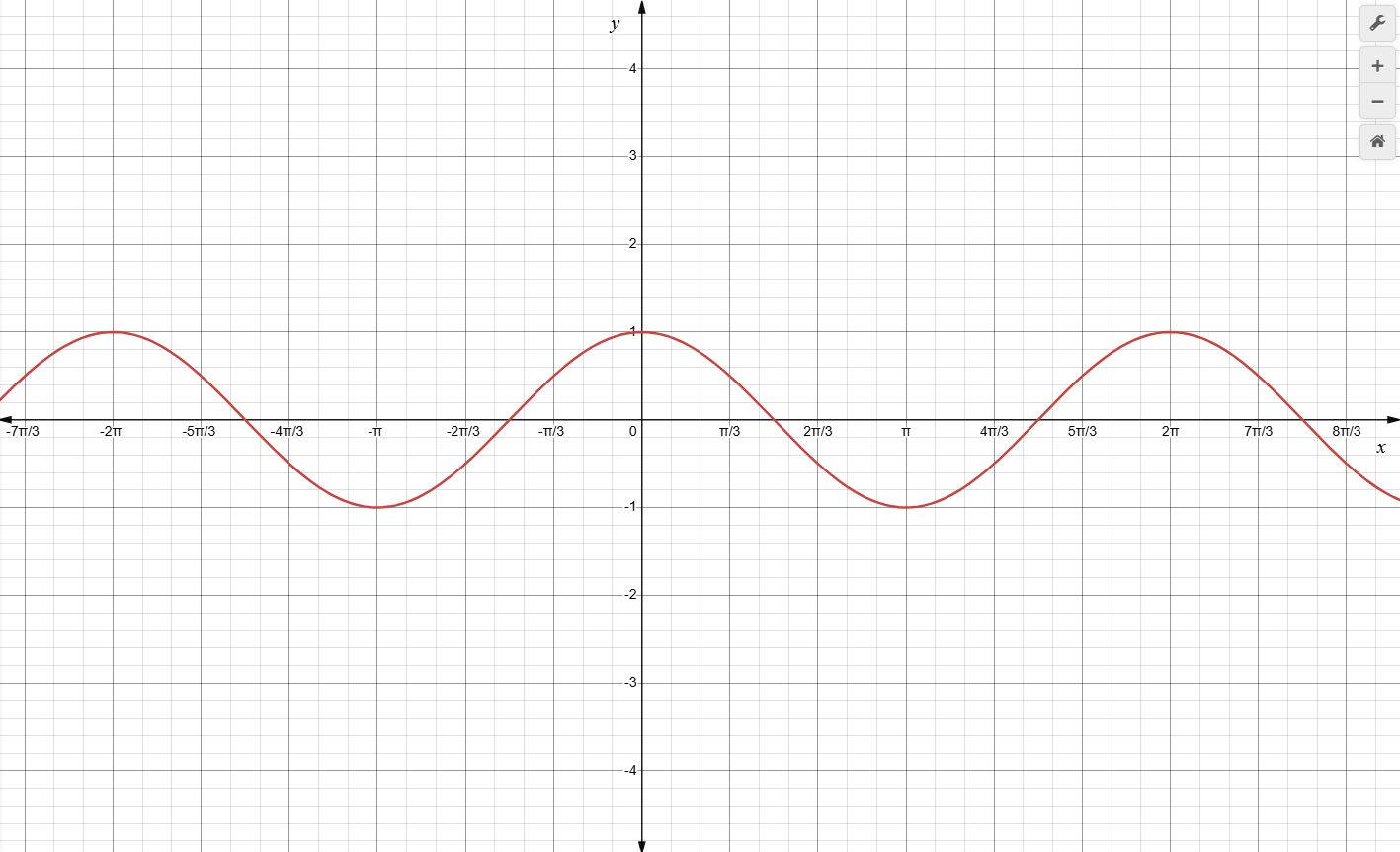
1. What is the phase shift of the function ?

\*\*Solution:

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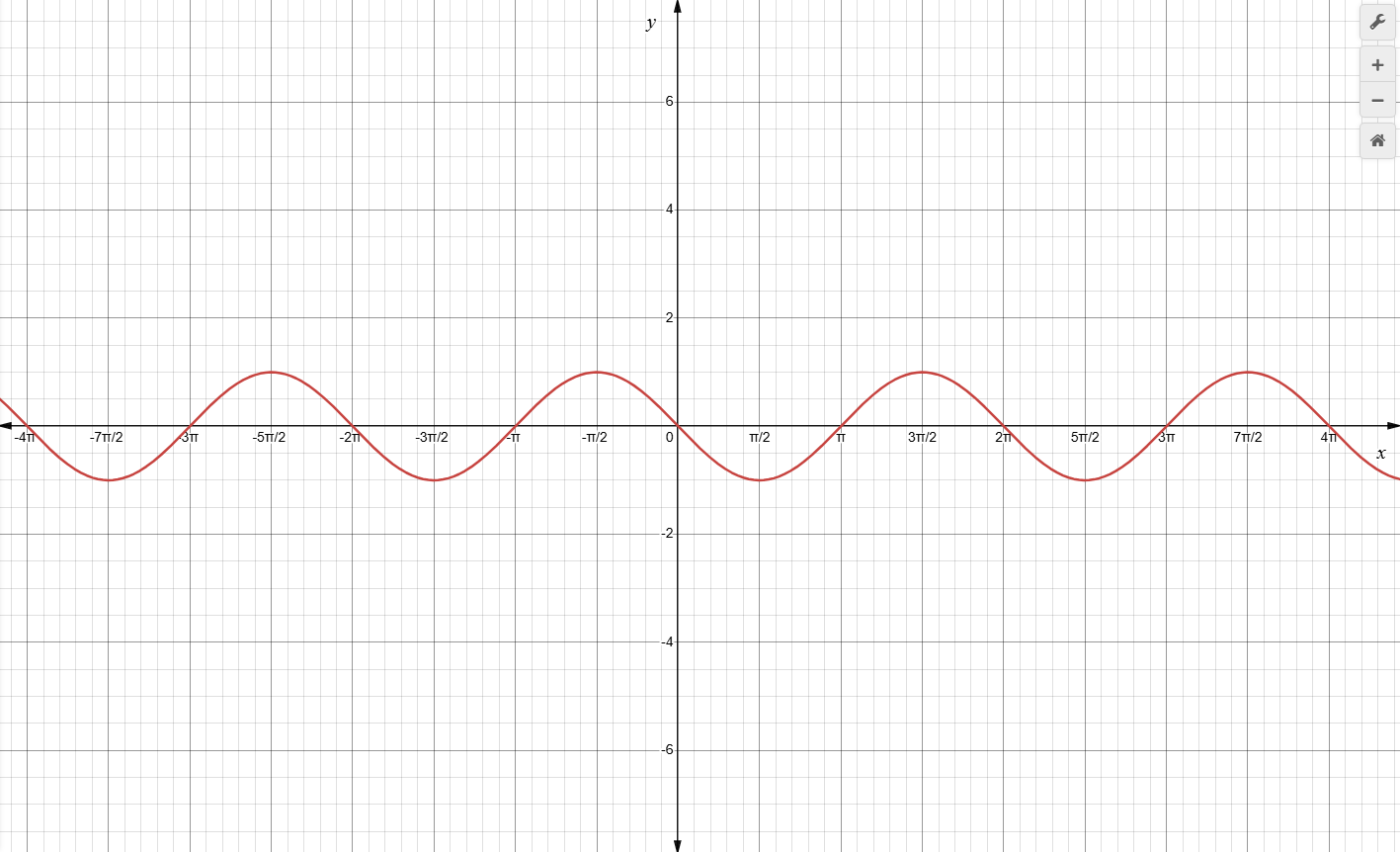
\*\*Solution:

1. What is the function that correctly represents the graph of the sine function below?



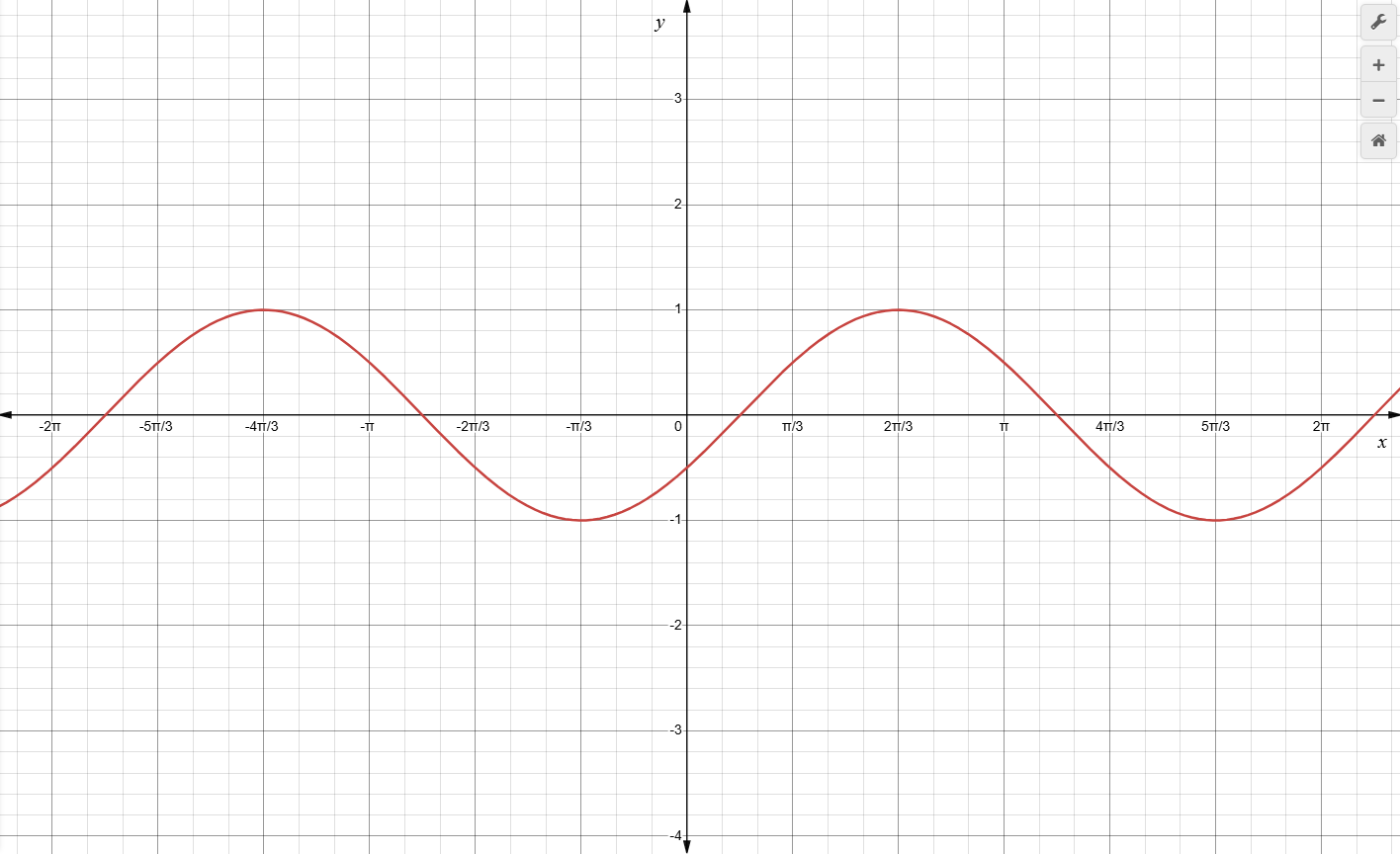
\*\*Solution:

1. What is the function that correctly represents the graph of the sine function below?



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\*\*Solution:

1. Describe how the graph of the function differs from the graph of .

* It shifts the graph of up by units.
* It shifts the graph of down by units.
* It shifts the graph of to the right by units.
* It shifts the graph of to the left by units.

\*\*Solution: It shifts the graph of to the left by units.

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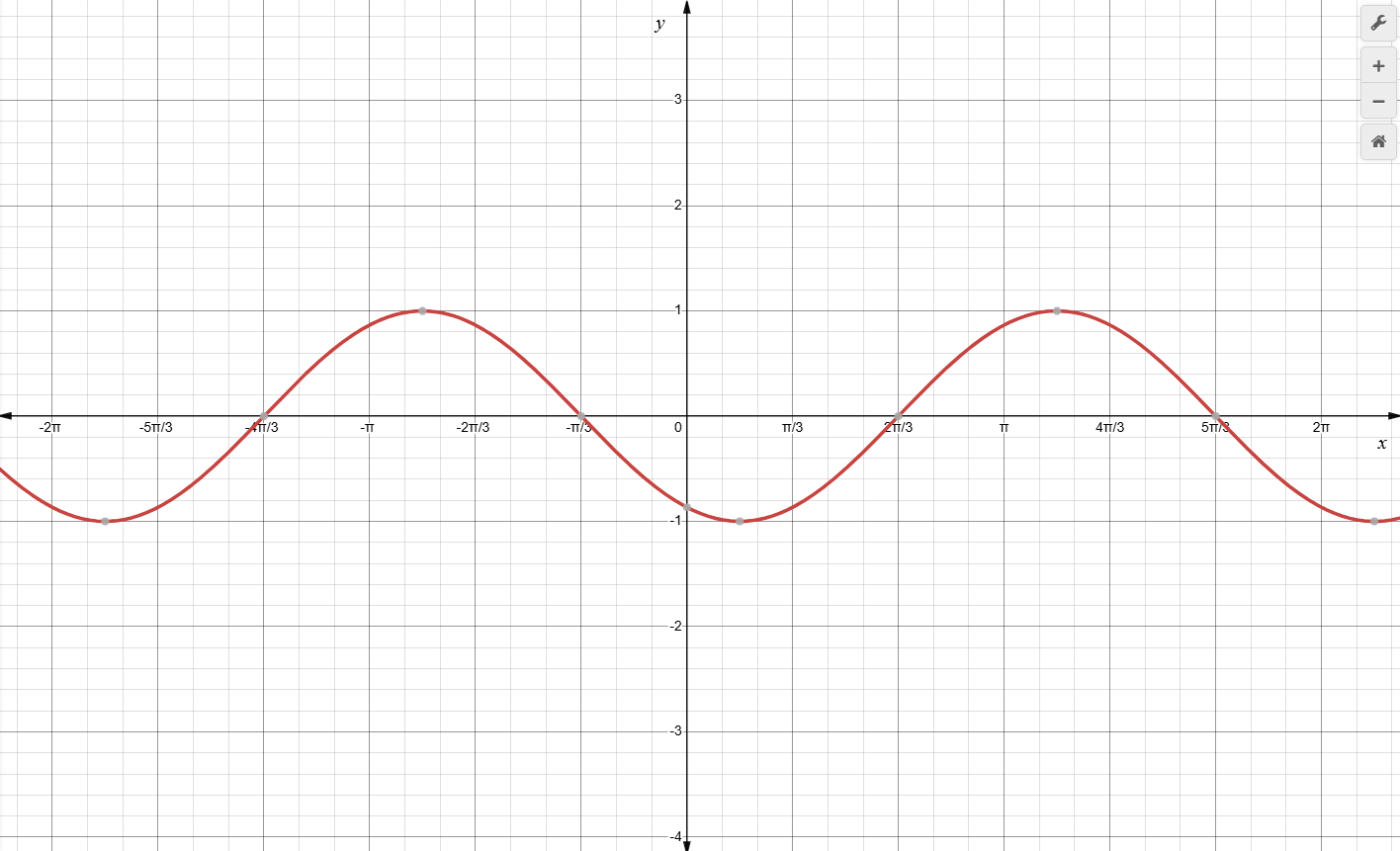
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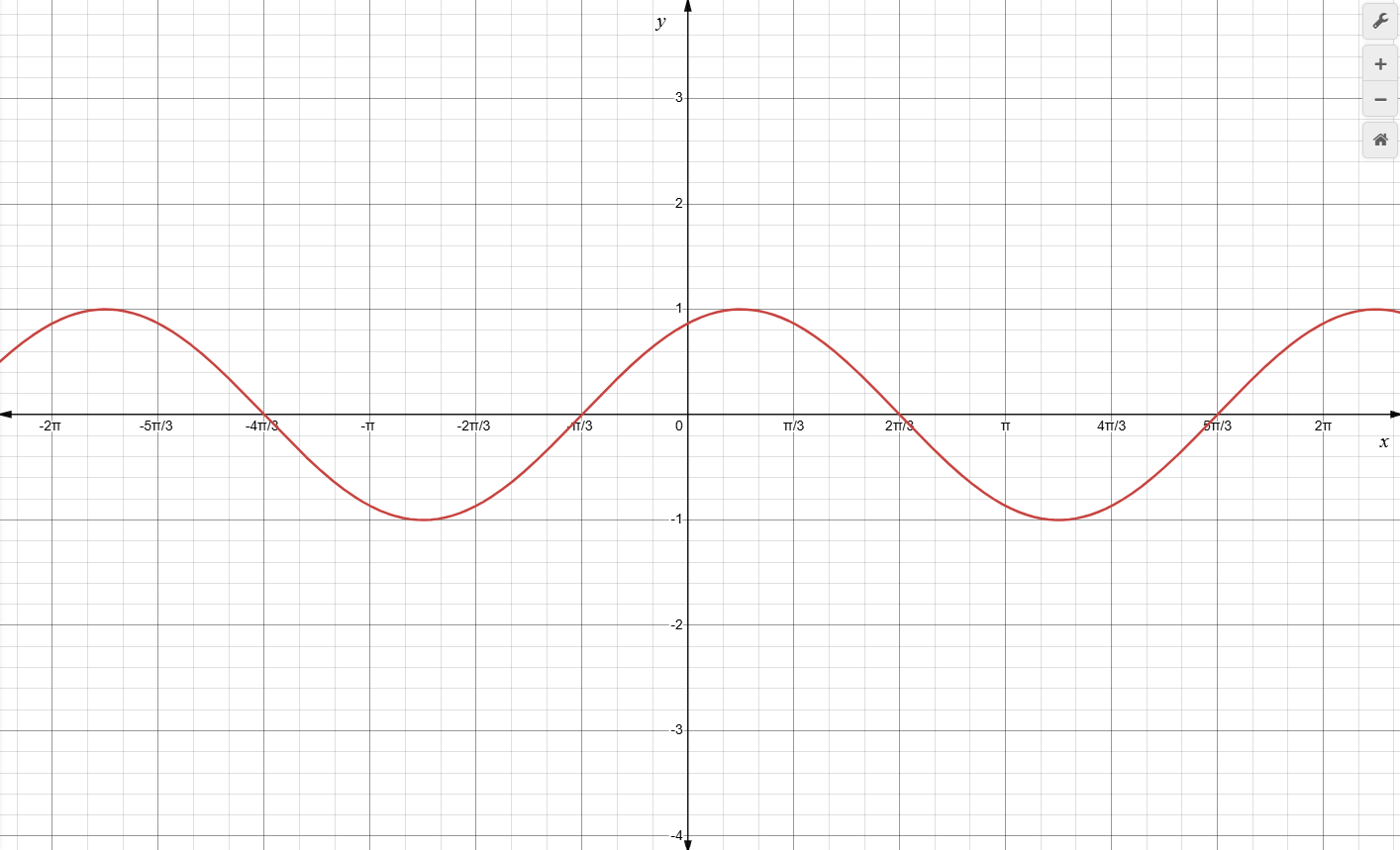
\*\*Solution: It shifts the graph of to the left by units.

1. Determine the equation of the sine function shown in the graph below.



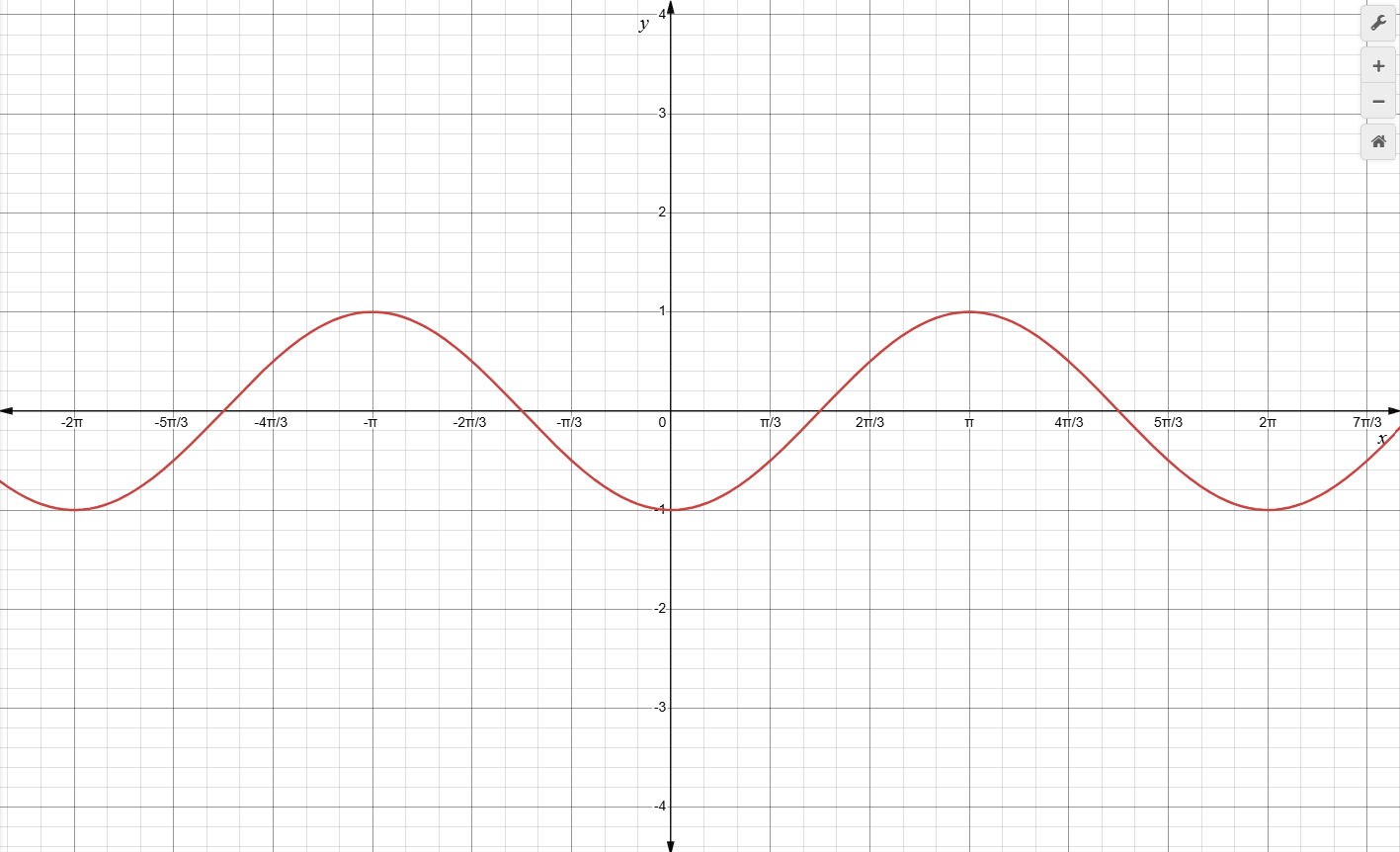
\*\*Solution:

1. Determine the equation of the sine function shown in the graph below.



\*\*Solution:

1. Determine the equation of the cosine function shown in the graph below.



\*\*Solution: