|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ SA Transformations of Sine and Cosine Writing a Function from its Graph Graphing a Function from its Function |

|  |  |  |
| --- | --- | --- |
| 2nd hour | 3rd hour | 4th hour |
| 5th hour | 6th hour | 7th hour |

 |

Write the equation of the given trigonometric function, answer the related questions, and select the related transformations

|  |  |
| --- | --- |
|  | 1. Write the trigonometric function in the given graph in both formats

General Trigonometric Function \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Translated Trigonometric Function \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

1. Complete the related table

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| A | B | C | D | Amplitude | Phase shift | Period Length | State implied period |

1. Circle the related transformations

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| VerticalCompression | VerticalStretch | Vertical Reflection | HorizontalCompression | Horizontal Stretch | Phase Shift LEFT | Phase Shift RIGHT |

Show any related work here

Extra Credit #1:

Which is more special to you and why?

A nice gesture when EXPECTED like your birthday, Valentine’s Day, or an anniversary, or a nice gesture when UNEXPECTED.

|  |  |
| --- | --- |
|  | 1. Write the trigonometric function in the given graph in both formats

General Trigonometric Function \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Translated Trigonometric Function \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

1. Complete the related table

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| A | B | C | D | Amplitude | Phase shift | Period Length | State implied period |

1. Circle the related transformations

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| VerticalCompression | VerticalStretch | Vertical Reflection | HorizontalCompression | Horizontal Stretch | Phase Shift LEFT | Phase Shift RIGHT |

Show any related work here

Extra Credit #2: Give an example of when you learned a lesson about the nature of friendships you have had in the past. Was this lesson a positive or negative experience?

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| $f\left(x\right)=\frac{-5}{7}\cos(\left(\frac{8}{5}x-80\right))$  state the translated version of this trigonometric function\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |
| --- | --- | --- | --- |
| A | B | C | D |

State any extreme value points or intercepts in the IMPLIED period as POINTS when angles are measured in degrees

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Label as Point K on graph below( , ) | Label as Point N on graph below( , ) | Label as point I on graph below( , ) | Label as point G on graph below( , ) | Label as point H on graph below( , ) |
| State each of these (these depend on A and D)

|  |  |  |
| --- | --- | --- |
| Range of the function | Midline of the function | Amplitude of the function |

State each of these (these depend on B and C)

|  |  |  |
| --- | --- | --- |
| Length of ONE PERIOD of the function | Period that is IMPLIED by this function | PHASE Shift of this function(be certain to state direction and number) |

 | Sketch g(x) label the FIVE important points (use the letters from above) |

 |

Circle the related transformations

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| VerticalCompression | VerticalStretch | Vertical Reflection | HorizontalCompression | Horizontal Stretch | Phase Shift LEFT | Phase Shift RIGHT |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| $g\left(x\right)=\frac{-5}{6}\sin(\left(\frac{4}{3}x-96\right))$  state the translated version of this trigonometric function\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |
| --- | --- | --- | --- |
| A | B | C | D |

State any extreme value points or intercepts in the IMPLIED period as POINTS when angles are measured in degrees

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Label as Point K on graph below( , ) | Label as Point N on graph below( , ) | Label as point I on graph below( , ) | Label as point G on graph below( , ) | Label as point H on graph below( , ) |
| State each of these (these depend on A and D)

|  |  |  |
| --- | --- | --- |
| Range of the function | Midline of the function | Amplitude of the function |

State each of these (these depend on B and C)

|  |  |  |
| --- | --- | --- |
| Length of ONE PERIOD of the function | Period that is IMPLIED by this function | PHASE Shift of this function(be certain to state direction and number) |

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 |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ SA Transformations of Sine and Cosine Writing a Function from its Graph Graphing a Function from its Function |

|  |  |  |
| --- | --- | --- |
| 2nd hour | 3rd hour | 4th hour |
| 5th hour | 6th hour | 7th hour |

 |

Write the equation of the given trigonometric function, answer the related questions, and select the related transformations

|  |  |
| --- | --- |
|  | 1. Write the trigonometric function in the given graph in both formats

General Trigonometric Function \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Translated Trigonometric Function \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

1. Complete the related table

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| A | B | C | D | Amplitude | Phase shift | Period Length | State implied period |

1. Circle the related transformations

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| VerticalCompression | VerticalStretch | Vertical Reflection | HorizontalCompression | Horizontal Stretch | Phase Shift LEFT | Phase Shift RIGHT |

Show any related work here

Extra Credit #1:

Which is more special to you and why?

A nice gesture when EXPECTED like your birthday, Valentine’s Day, or an anniversary, or a nice gesture when UNEXPECTED.

|  |  |
| --- | --- |
|  | 1. Write the trigonometric function in the given graph in both formats

General Trigonometric Function \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Translated Trigonometric Function \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

1. Complete the related table

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| A | B | C | D | Amplitude | Phase shift | Period Length | State implied period |

1. Circle the related transformations

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| VerticalCompression | VerticalStretch | Vertical Reflection | HorizontalCompression | Horizontal Stretch | Phase Shift LEFT | Phase Shift RIGHT |

Show any related work here

Extra Credit #2: Give an example of when you learned a lesson about the nature of friendships you have had in the past. Was this lesson a positive or negative experience?

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| $f\left(x\right)=-\frac{5}{3}\sin(\left(\frac{8}{3}x-72\right))$  state the translated version of this trigonometric function\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |
| --- | --- | --- | --- |
| A | B | C | D |

State any extreme value points or intercepts in the IMPLIED period as POINTS when angles are measured in degrees

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Label as Point K on graph below( , ) | Label as Point N on graph below( , ) | Label as point I on graph below( , ) | Label as point G on graph below( , ) | Label as point H on graph below( , ) |
| State each of these (these depend on A and D)

|  |  |  |
| --- | --- | --- |
| Range of the function | Midline of the function | Amplitude of the function |

State each of these (these depend on B and C)

|  |  |  |
| --- | --- | --- |
| Length of ONE PERIOD of the function | Period that is IMPLIED by this function | PHASE Shift of this function(be certain to state direction and number) |

 | Sketch g(x) label the FIVE important points (use the letters from above) |

 |

Circle the related transformations

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| VerticalCompression | VerticalStretch | Vertical Reflection | HorizontalCompression | Horizontal Stretch | Phase Shift LEFT | Phase Shift RIGHT |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| $g\left(x\right)=\frac{2}{5}\cos(\left(\frac{5}{3}x+90\right))$  state the translated version of this trigonometric function\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |
| --- | --- | --- | --- |
| A | B | C | D |

State any extreme value points or intercepts in the IMPLIED period as POINTS when angles are measured in degrees

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
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| State each of these (these depend on A and D)

|  |  |  |
| --- | --- | --- |
| Range of the function | Midline of the function | Amplitude of the function |

State each of these (these depend on B and C)

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| --- | --- | --- |
| Length of ONE PERIOD of the function | Period that is IMPLIED by this function | PHASE Shift of this function(be certain to state direction and number) |

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| --- | --- | --- | --- | --- | --- | --- | --- |
| Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ SA Transformations of Sine and Cosine Writing a Function from its Graph Graphing a Function from its Function |

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| --- | --- | --- |
| 2nd hour | 3rd hour | 4th hour |
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|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| A | B | C | D | Amplitude | Phase shift | Period Length | State implied period |

1. Circle the related transformations

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| VerticalCompression | VerticalStretch | Vertical Reflection | HorizontalCompression | Horizontal Stretch | Phase Shift LEFT | Phase Shift RIGHT |

Show any related work here

Extra Credit #1:

Which is more special to you and why?

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General Trigonometric Function \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Translated Trigonometric Function \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

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|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| A | B | C | D | Amplitude | Phase shift | Period Length | State implied period |

1. Circle the related transformations

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| VerticalCompression | VerticalStretch | Vertical Reflection | HorizontalCompression | Horizontal Stretch | Phase Shift LEFT | Phase Shift RIGHT |

Show any related work here

Extra Credit #2: Give an example of when you learned a lesson about the nature of friendships you have had in the past. Was this lesson a positive or negative experience?

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| $f\left(x\right)=\frac{7}{8}\sin(\left(\frac{9}{5}x-80\right))$  state the translated version of this trigonometric function\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |
| --- | --- | --- | --- |
| A | B | C | D |

State any extreme value points or intercepts in the IMPLIED period as POINTS when angles are measured in degrees

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Label as Point K on graph below( , ) | Label as Point N on graph below( , ) | Label as point I on graph below( , ) | Label as point G on graph below( , ) | Label as point H on graph below( , ) |
| State each of these (these depend on A and D)

|  |  |  |
| --- | --- | --- |
| Range of the function | Midline of the function | Amplitude of the function |

State each of these (these depend on B and C)

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| Length of ONE PERIOD of the function | Period that is IMPLIED by this function | PHASE Shift of this function(be certain to state direction and number) |

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 |

Circle the related transformations

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| VerticalCompression | VerticalStretch | Vertical Reflection | HorizontalCompression | Horizontal Stretch | Phase Shift LEFT | Phase Shift RIGHT |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| $g\left(x\right)=\frac{5}{6}\cos(\left(\frac{1}{4}x+96\right))$  state the translated version of this trigonometric function\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |
| --- | --- | --- | --- |
| A | B | C | D |

State any extreme value points or intercepts in the IMPLIED period as POINTS when angles are measured in degrees

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| State each of these (these depend on A and D)

|  |  |  |
| --- | --- | --- |
| Range of the function | Midline of the function | Amplitude of the function |

State each of these (these depend on B and C)

|  |  |  |
| --- | --- | --- |
| Length of ONE PERIOD of the function | Period that is IMPLIED by this function | PHASE Shift of this function(be certain to state direction and number) |

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 |