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## MATH IV

Assessment

1) Fill in the blank unit circle given and turn it in when completed. I will then give you a unit circle which has already been filled in.
2) Sketch the graph of each of the 6 trigonometric functions. Be sure to identify which one is which. Label all axes and denote asymptotes as dotted lines.






3) For the table below, identify each of the 6 trigonometric functions (by name), give the domain and range, and identify the length of the period.

| Trig Function | Domain | Range | Period |
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For problems 4-6, sketch the graph of the equation given. You may use your graph of the parent function on page 1 of the quiz. You may also plot points to help draw the graph. Denote asymptotes as dotted lines. Use a colored pencil to highlight one full period on the graph.
4) $y=\sec (x-\pi)$

5) $y=\tan (2 x)+4$

6) $y=-3 \csc (x)$

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## Answer the following questions using complete sentences.

7) Explain why the period for secant and cosecant is different from the period of tangent and cotangent.
8) Explain to a person who has never taken this class why the graph for tangent has asymptotes. State where the asymptotes are located and explain why using the unit circle.
