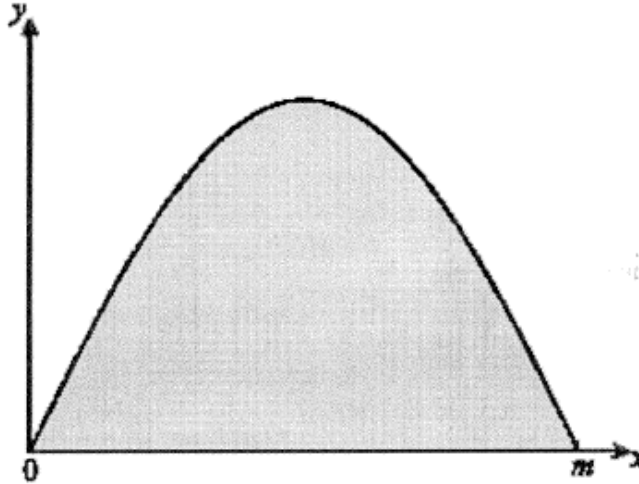


NAME: _____

DATE: 11/13/2017

The diagram below shows part of the graph of $y = \sin 2x$. The shaded region is between $x = 0$ and $x = m$.

2.)



(a) Write down the period of this function.

[2 marks]

(b) Hence or otherwise write down the value of m .

[2 marks]

3.)

(a) Determine the maximum value of the function $f(x) = a \cos bx$, $a, b \in \mathfrak{R}$

(b) Determine the maximum value of $g(x) = -a \cos(2bx) + c$, $a, b, c \in \mathfrak{R}$

(c) If $P_1 =$ the period of f , and $P_2 =$ the period of g , write down an equation relating P_1 and P_2 .

NAME: _____

DATE: 11/13/2017

Answer key:

- 1) After you've already used your unit circle to find outputs for input values between $-\pi$ and π , you can check your work with the Desmos online graphing calculator.
- 2) Tutorials
- 3) Tutorials