

Name _____ Period _____ Date _____

Ms. Schmidt

Pre-Calculus

Bi-Weekly Homework Quiz 15

This is a weekly homework quiz that will be given every week and is due back the following Tuesday.

This quiz is due back: **April 23rd, 2018**

To receive full credit, all work must be shown. Any correct answer without work shown will receive only 1 point.

- 1) A resultant force of 143 pounds is needed to move a heavy box. Two applied forces act on angles of 36° and 47° with the resultant force. Find to the nearest pound the magnitude of the largest force.

- 2) Determine if the function has any vertical asymptotes, horizontal asymptotes, slant asymptotes and holes. Also find any x-intercepts, y-intercepts and the domain of the function.

$$f(x) = \frac{-x^2 + 7x - 12}{x^2 - x - 12}$$

3) Verify the trig identity: $\tan^2 x + 1 + \tan x \sec x = \frac{1+\sin x}{\cos^2 x}$

4) Solve: $\log_8(x - 6) + \log_8(x + 6) = 2$

5) Solve the equation for the interval $0 \leq x < 2\pi$
 $2 \sin^2 x - 5 \sin x - 3 = 0$