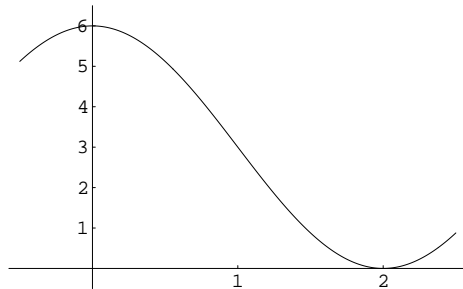


NO CALCULATORS ON THIS QUIZ.

1. (8 points) The graph of a function of the form $f(x) = A \sin(B(x+C)) + D$ is shown below. Find A , B , C , and D and write your answers in the blanks provided.



$A =$ _____

$B =$ _____

$C =$ _____

$D =$ _____

2. (12 points) Fill in the blanks or circle the correct answer, as appropriate. Show work for the last three parts.

- a. (1 pt) “ $\sin^{-1} x$ ” is the angle in the interval _____ whose sine is x .
- b. (1 pt) $\cos^{-1}(-\frac{2}{3})$ is (positive) (negative)
- c. (1 pt) $\cot^{-1}(100)$ is (defined) (not defined)
- d. (3 pts) $\arctan x = y \iff x =$ _____ ,
if x is in the interval _____ and y is in the interval _____ .
- e. (2 pts) If $\sec^{-1} x = \theta$, then $\cos \theta =$ _____ .
- f. (2 pts) $\tan(\sin^{-1} x)$ is equal to the algebraic expression _____ .
- g. (2 pts) A function whose derivative is $f'(x) = \frac{2}{\sqrt{1-3x^2}}$ is $f(x) =$ _____ .