

AP Calculus Worksheet #1  
End of Chapter P  
(No Calculator)

Due: \_\_\_\_\_

**Grading:**

100% = All 5 correct

90% = 4 ½ correct

85% = 4 correct

80% = 3 ½ correct

75% = 3 correct

70% = 2 ½ correct

65% = 2 correct

50% = 1 correct

Work must support your answers.

No exceptions.

This is an answer sheet only!

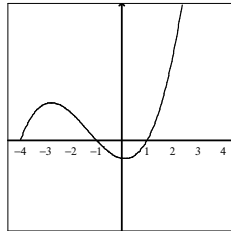
1. Find the domain and range of the function  $f(x) = \sqrt{4-x^2}$ . D: \_\_\_\_\_ R: \_\_\_\_\_

2. If  $h$  is the function given by  $h(x) = f(g(x))$ , where  $f(x) = 2x^4 - x^2 + 5$  and  $g(x) = |x-1|$ , then  $h(x) =$  \_\_\_\_\_.

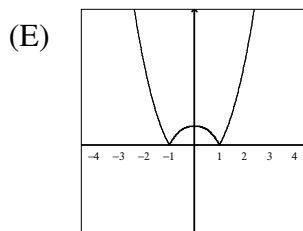
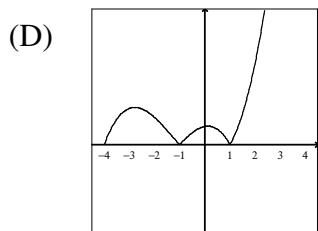
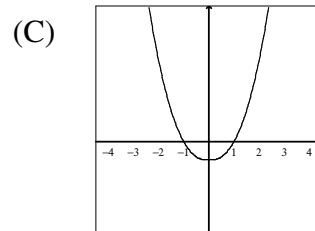
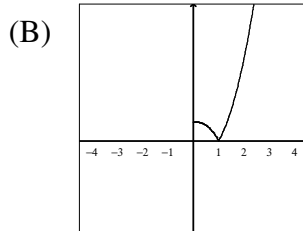
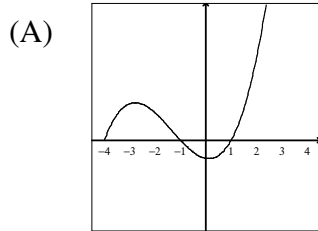
3. The fundamental period of  $3 \tan(6x)$  is \_\_\_\_\_.

4. If the graph of  $y = \frac{ax+9}{x+c}$  has a  $x$ -intercept at  $x = 3$  and a vertical asymptote  $x = -3$ , then  $a + c =$  \_\_\_\_\_.

5.



The graph of  $y = f(x)$  is shown in the figure above. Which of the following could be the graph of  $y = f(|x|)$ ? Justify your answer using complete sentences.



Justify: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_