

King Fahd University of Petroleum and Minerals
Department of Math & Stat
Math 132 Section # 1, 5 (092)
Quiz 3(a)

Time: 20 minutes

Marks: _____/9

Name: _____ Section #: _____

ID #: _____ Serial #: _____

1. If p is price per unit and q is the number of units. Then demand equation is given by $p = \frac{80 - q}{4}$ where $0 \leq q \leq 80$. Find the maximum revenue.

2. Find all asymptotes of the function $f(x) = \frac{1 + x^2}{1 - x^2}$.

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Quiz 3(b)

Time: 20 minutes

Marks: _____/9

Name: _____ Section #: _____

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1. For $f(x) = x^4 - 16$, find (i) interval on which f is decreasing, (ii) interval on which f is increasing, (iii) a relative minimum value of f .

2. For $f(x) = \frac{3 - x^4}{x^3 + x^2}$, find vertical, horizontal and oblique asymptotes, if they exist.

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Quiz 3(c)

Time: 20 minutes

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Name: _____ Section #: _____

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1. For $f(x) = \frac{x}{x^2 + 1}$, find absolute maximum and absolute minimum on $[0, 2]$.

2. Find horizontal and vertical asymptotes, if any, for the function $y = e^x - 1$.