

OIL CONSERVATION COMMISSION

P. O. BOX 2045

HOBBS, NEW MEXICO

DATE January 7, 1958

TO:

Lone Star Producing Co.

Route 1, Box 45

Midland, Texas

Gentlemen:

In accordance with the provisions of Commission Order No. R 1105,
your Santa Fe #2-0 19-9-37, which
Lease Well No. S-T-R,
is currently listed in the undesignated section of the oil proration
schedule, will appear in the East Crossroads Devonian Pool in the
February Proration schedule.

Please file Form C-110 showing the change in pool designation of
this well.

Yours very truly,

OIL CONSERVATION COMMISSION

R. F. Montgomery
Proration Manager

RFM/eb

PROBLEM 1

Let $f: \mathbb{R} \rightarrow \mathbb{R}$ be a function

$$f(x) = \begin{cases} x^2 \sin\left(\frac{1}{x}\right) & x \neq 0 \\ 0 & x = 0 \end{cases}$$

1. Show that f is differentiable at $x=0$.

2.

3. Show that f is differentiable at $x=0$.

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5. Show that f is differentiable at $x=0$.

6.

7. Show that f is differentiable at $x=0$.

8. Show that f is differentiable at $x=0$.

9. Show that f is differentiable at $x=0$.

10. Show that f is differentiable at $x=0$.

11. Show that f is differentiable at $x=0$.

12. Show that f is differentiable at $x=0$.

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