

\*ID# \_\_\_\_\_

Quiz 6 MATH 102-T091

Section: \_\_\_\_\_

Serial # \_\_\_\_\_

**1. Find the Power Series Representation and the interval of convergence for the function**

$f(x) = \ln(1 - 27x^3)$  (Hint use P.S.R for  $\ln(1-x)$ )

**3. Find the Arc Length of the curve**

$y = \frac{1}{3}x^{3/2}; 0 \leq x \leq 1$

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**2. Find 1<sup>st</sup> 3 nonzero terms of the P.S.R. of  $\cos x$  about  $a = \pi/4$**

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Quiz 6 MATH 102- T091

Section: \_\_\_\_\_

Serial # \_\_\_\_\_

**1. Find the Power Series Representation and the interval of convergence for the function**

$f(x) = \tan^{-1}(16x^4)$  (Hint use P.S.R for  $\tan^{-1}x$ )

**3. Find the Arc Length of the curve**

$$y = \frac{1}{3}x^{3/2}; 1 \leq x \leq 4$$

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**2. Find 1<sup>st</sup> 3 nonzero terms of the P.S.R. of  $\ln x$  about  $a = 1$**