

**THE COMPARISON BETWEEN NEWTON-RAPHSON METHOD  
AND SECANT METHOD IN PREDICTING THE DEPTH OF  
LIQUID IN SPHERICAL TANK**

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## ABSTRACT

This study is about making prediction of the depth of liquid in spherical tank by using Newton-Raphson Method and Secant Method. Since the Newton-Raphson Method is the most widely used of all root-locating and Secant Method is simplicity and efficiency, this problem is the one of the applications that we can solve in engineering fields. The approximate difference between Newton method and Secant method is the same which is 3.6479 or 3.648 to three decimal places. Therefore, even though the two methods are different, it can be claimed that they both provide the same estimate. The number of iterations required to meet the convergence criterion is the only distinction between these two approaches. Discovered that the Newton method converges quicker than the Secant method, according to the three ways that have been tested to determine which method converges most quickly.

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