

1. Derive the expression for determining displacement s occurred for a body over a time period t with constant velocity v and constant acceleration a started with an initial speed u , and an initial position of zero.

2. Determine the value of following functions

a. $\log_1 02$

b. $\tan(0)$

c. $\sqrt{121}$

3. Solve $\lim_{x \rightarrow 2} (8 - 3x + 12x^2)$

4. Derive the expression for determining hypotenuse of a right angled triangle (Pythagoras Theorem)

5. Determine the limit of following

a. $f(x) = 1 + 1/x$ at $x = 4$

b. $\frac{\sin x}{x}$ at $x = 0$

6. $f(x) = \sin \frac{x}{2}$

$g(x) = \log x$

Determine

1. $f+g$

2. $f-g$

3. fg

4. f/g

5. f composition g

6. g composition f

at $x=1$

In []:

