Task : Math Practice

Eqⁿ 1 : Height of Right Triangle

Formula : Height = base × tan θ

Used Methods : Math.tan(), Math.toRadians()

Eqⁿ 2 : Compound Interest

Formula : $A = P \times \left(1 + \frac{r}{n}\right)^{n \times t}$

A = Total Amount

P = Principal

r = Annual Interest Rate

n = Number of Compounds per year

t = time in years

Used Methods : Math.pow( ),

Eqⁿ 3 : Cartesian to Polar Coordinates

Formula :

$$r = \sqrt{x^2 + y^2}$$

$$\theta = \tan^{-1}\left(\frac{y}{x}\right)$$

Used Methods : Math.sqrt( ), Math.pow( ), Math.atan2( ), Math.toDegrees( ),

Eqn 4: Distance Between two Points

Formula:

$$Distance = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$$

Used methods: Math.sqrt(), Math.pow().

Eqn 5: Quadratic Equation Solver

Formula:

$$Roots = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

Used Methods: Math.pow(), Math.sqrt(),
Math.min(),