1. Linear functions
   • a. Slope-intercept form $y = mx + b$.
      Find $m$ and $b$ given two points $(x_0, y_0)$ and $(x_1, y_1)$ on the line.
   • b. Determine whether a set of points (a table of data) are on a straight line.
   • b. Graph of a linear function.

2. Applications
   • a. Cost functions, Revenue functions, Profit functions, Break-even points.
   • b. Depreciation functions.
   • c. Supply curve and Demand curve, Equilibrium price and quantity, Tax effects on the equilibrium.

3. Exponential functions $P(t) = P_0a^t$ and $P(t) = P_0e^{kt}$
   • a. Exponential growth and exponential decay.
   • b. Determine the base $a$ by the numerical data of $P(t)$.
   • c. Recognize exponential functions and linear functions based on their numerical data. Find a formula based on numerical data of an exponential function.
   • d. Conversion between the forms $P(t) = P_0a^t$ and $P(t) = P_0e^{kt}$. Continuous rate of growth or decay.
   • e. Doubling time and half-life.

4. Natural Logarithm $\ln x$.
   • a. Solving equations for unknowns appearing in exponents.

5. Compound interests. Interest compounded yearly or continuously.

6. New functions from the old
   • a. Composite functions.
   • b. Obtain new functions by shifting or vertical stretching.

7. Power functions and polynomials
   • a. Power functions. Convert various forms of power functions into the standard form $y = kx^p$ for $p = \text{positive, negative, or fractional numbers}$.
   • b. Polynomials. Power function that approximates a polynomial for large input values.