MATH 1730 - CALCULUS WITH APPLICATIONS IN BUSINESS AND FINANCE
R.2 R.3 AND R.4
MODELS - representation / description of some object of relations betweens objects
 mathematical model
simple or compound interest - their formulae are models
a = ty coup tant
 Variat us
models/formaue represent functions
 2 sets - domain, range.
M = 2M $(1 + 1)$ $(2 + 1)$ $(2 + 1)$ $(2 + 1)$ $(2 + 1)$ $(2 + 1)$ $(3 + 1)$ $(4 +$
for every x, y is unique





piecewise functions: f(x) will have different equation forms depending on the value of x



interval notation J [2]-2<2<2} (2,2) + 12 - 25252 [2,2]) -> fit -D< x <2) -> merke no sense $(-\infty, 2,$ [2, X) _____ all values a r $An 7 \leq$ { 1, 2, 5.... <u>√</u>-> natural numbers y take 1,2,3... types of functions: 1. constant functions 2. linear functions 3. non linear functions



$$Y = m\pi + c - t$$
intercept is where the line will cut the y-axis (y-intercept)
$$Y = 2 - i n + c + b + (0, 2)$$

$$Y = \pi - 1 - 0 - n + (0, 2)$$

$$Y = \pi - 1 + b + (0, 2)$$

$$Y = \pi - 1 + b + (0, 2)$$

$$y = m \pi + b + (0, 2)$$
slope intercept equation
$$y - y = m(x - x) + y + (y - \pi) + y + (y - \pi)$$

$$(y - \pi) + y + (y - \pi) + y + (y - \pi)$$

$$(y - \pi) + y + (y - \pi) + y + (y - \pi)$$
if you know the value of the slope, and any 1 point
on the line, you can find the equation of the line
and plot it as well
$$M = 2 - (1, 3) + (y - \pi) + (y -$$

 $\frac{\gamma - \gamma_{1}}{(n, \gamma)} = m(n - n)$ (n2))2, 31) **۸**۱ (χ_{L}, Υ_{2}) $\gamma_2 - \gamma_1 = m / n_2 - n_1$ $= \frac{\gamma_2 - \gamma_1}{\gamma_2 - \gamma_1}$ (+ $y = 2\pi + 1$ 1,37 2,5/ $m = \frac{5-3}{-1} = \frac{2}{-1} = 2$ if we know 1 point and the slope, we can draw/find the line/eqn. if we 2 points, we can find the slope, and thus draw/find the line/equation