

Name: Key

y = equation (price) Date: _____
x = constraints (Age)

Algebra 1 – Writing the Equation of Piecewise Functions – Do Now

Complete the following problem.
Given the admission price for the given ages:

- Children 5 years old and under: free
- Children above 5 years to 12 years: \$10.00
- Children above 12 years to 18 years: \$25.00
- Adults: \$35.00

Domain must be in numerical order

- a) Write a piecewise function that gives the admission price for the given ages.
- b) Graph the function.

①
m: 0
B: 0
y = 0
 $0 < x \leq 5$

②
m: 0
B: 10
y = 10
 $5 < x \leq 12$

③
m: 0
B: 25
y = 25
 $12 < x \leq 18$

④
m: 0
B: 35
y = 35
 $x > 18$

$$f(x) = \begin{cases} 0, & \text{if } 0 < x \leq 5 \\ 10, & \text{if } 5 < x \leq 12 \\ 25, & \text{if } 12 < x \leq 18 \\ 35, & \text{if } x > 18 \end{cases}$$

ADMISSION

