Discrete & Non-Discrete Functions

Classify each of the functions described below as either discrete or not discrete.

a)	beans in a particular grocery store.
b)	The function that assigns to each time of day one Wednesday the temperature of Sammy's fever at that time.
c)	The function that assigns to each real number its first digit.
d)	The function that assigns to each day in the year 2015 my height at noon that day.
e)	The function that assigns to each moment in the year 2015 my height at that moment.
f)	The function that assigns to each color the first letter of the name of that color.
g)	The function that assigns the number $23\ \text{to}$ each and every real number between $20\ \text{and}\ 30.6.$
h)	The function that assigns the word YES to every yes/no question.
i)	The function that assigns to each height directly above the North Pole the temperature of the air at that height right at this very moment.

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Discrete & Non-Discrete Functions

Classify each of the functions described below as either discrete or not discrete.

a) The function that assigns to each whole number the cost of buying that many cans of beans in a particular grocery store.

Discrete

b) The function that assigns to each time of day one Wednesday the temperature of Sammy's fever at that time.

Not discrete

c) The function that assigns to each real number its first digit.

Not discrete

d) The function that assigns to each day in the year 2015 my height at noon that day.

Discrete

e) The function that assigns to each moment in the year 2015 my height at that moment.

Not discrete

f) The function that assigns to each color the first letter of the name of that color.

Discrete

g) The function that assigns the number 23 to each and every real number between 20 and 30.6.

Not discrete

h) The function that assigns the word YES to every yes/no question.

Discrete

i) The function that assigns to each height directly above the North Pole the temperature of the air at that height right at this very moment.

Not discrete

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