

Quiz 1

Key

Show *all* your work. Reasonable supporting work must be shown to earn credit. There are *two* sides to this quiz.

1. (WebHW2 #21) A person currently has \$140 in a Christmas savings account. The person deposits \$9 per week into this account.

- (a) [3] Write a function that returns how much money is in an account at a certain time. Be sure to define any variables that you create!

let t be # of week since Christmas
let A be the amount of \$ in the account] (+1)

$$A = 140 + 9 \cdot t$$

line (+1.5)
start (+1.5)

- (b) [1] Find what the y intercept means in terms of money and time.

The y intercept would correspond to when $t=0$
So the initial amount of \$ the person starts with (\$140)

two (+1.5)
terms of \$ + time (+1.5)

2. Define G that takes numbers to the letter that it starts with when written in English. For example, $G(2) = t$ since two begins with the letter t.

- (a) [1] (2017 Autumn TMath120) Is the point $(6, s)$ on the graph of G ? Why or why not?

Yes. The # 6 is written as six in English
so $G(6) = s$.

- (b) [1] (§1.3 #104) Is G a function? Why or why not.

Yes. Each # is spelled uniquely in English
so each # will give only 1 output.

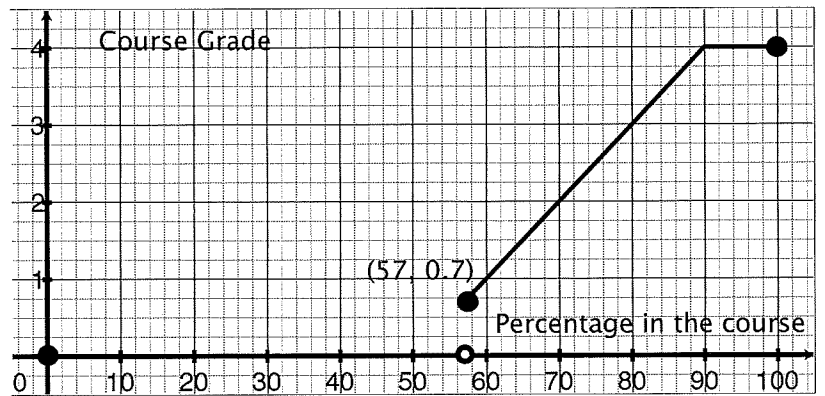
3. Let g be the piecewise defined graph shown below.

- (a) [1] (WebHW1 #10)
Estimate $g(85)$.

3.5

- (b) [1] (WebHW #12)
Estimate x such
that $g(x) = 2.0$.

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- (c) [1] (FunctionsActivity #1) Find the domain.

$[0, 100]$

- (d) [1] (§1.1 #66) Find at least one y -intercept of the graph.

$(0, 0)$
 really can only be one if this is a function?