1 point Consider the problem of predicting how well a student does in her second year of college/university, given how well she did in her first year.

Specifically, let x be equal to the number of "A" grades (including A-. A and A+ grades) that a student receives in their first year of college (freshmen year). We would like to predict the value of y, which we define as the number of "A" grades they get in their second year (sophomore year).

Here each row is one training example. Recall that in linear regression, our hypothesis is $h_{\theta}(x)=\theta_0+\theta_1 x$, and we use m to denote the number of training examples.

x	у
3	2
1	2
0	1
4	3

For the training set given above (note that this training set may also be referenced in other questions in this quiz), what is the value of m? In the box below, please enter your answer (which should be a number between 0 and 10).

4

using the training set from Q1. Recall our definition of
the

cost function was

$$J(heta_0, heta_1) = rac{1}{2m} \sum_{i=1}^m (h_ heta(x^{(i)}) - y^{(i)})^2$$

What is J(0,1)? In the box below,

please enter your answer (Simplify fractions to decimals when entering answer, and '.' as the decimal delimiter e.g., 1.5).

0.5

1 point **3.** Suppose we set $heta_0 = -1, heta_1 = 0.5$. What is $h_{ heta}(4)$?

1

1 point 4. Let f be some function so that

 $f(heta_0, heta_1)$ outputs a number. For this problem,

f is some arbitrary/unknown smooth function (not necessarily the

cost function of linear regression, so f may have local optima).

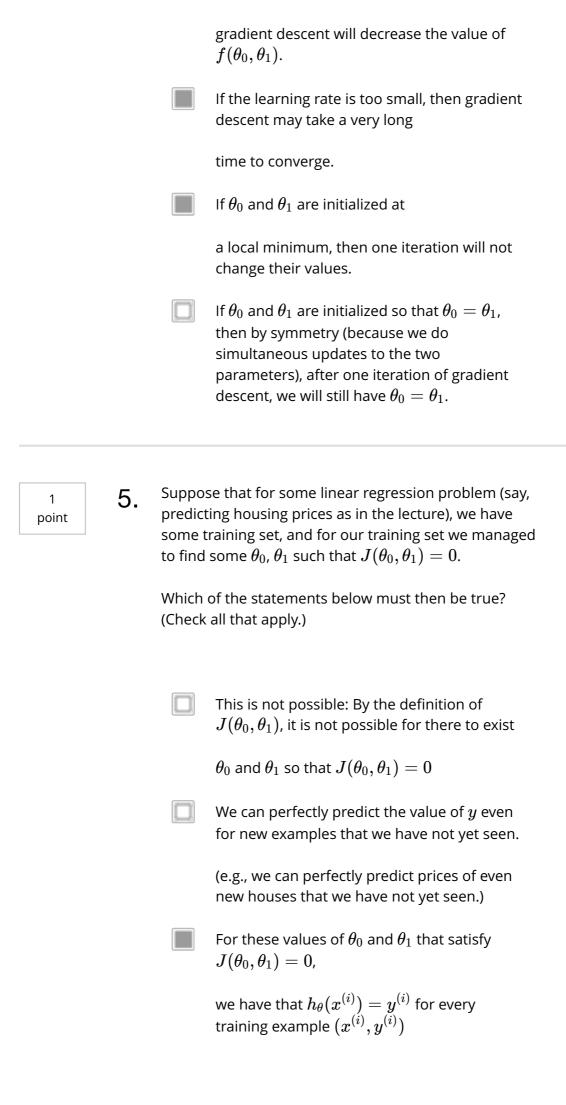
Suppose we use gradient descent to try to minimize $f(heta_0, heta_1)$

as a function of θ_0 and θ_1 . Which of the

following statements are true? (Check all that apply.)
Linear Regression with One Variable

Quiz, 5 questions

Even if the learning rate lpha is very large, every iteration of



For this to be true, we must have $ heta_0=0$ and $ heta_1=0$
so that $h_{ heta}(x)=0$

I, **Zhaiyu Chen**, understand that submitting work that isn't my own may result in permanent failure of this course or deactivation of my Coursera account.

Learn more about Coursera's Honor Code

Submit Quiz





