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## Practice quiz: Multiple linear regression

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1. In the training set below, what is  $x_4^{(3)}$ ? Please type in the number below (this is an integer such as 123, no decimal points).

1 / 1 point

Size in feet <sup>2</sup>	Number of bedrooms	Number of floors	Age of home in years	Price (\$) in \$1000's
$x_1$	$x_2$	$x_3$	$x_4$	
2104	5	1	45	460
1416	3	2	40	232
1534	3	2	30	315
852	2	1	36	178
...	...	...	...	...

30

✔ Correct

Yes!  $x_4^{(3)}$  is the 4th feature (4th column in the table) of the 3rd training example (3rd row in the table).

- 2.

1 / 1 point

Which of the following are potential benefits of vectorization? Please choose the best option.

- ☐ It makes your code run faster  
☐ It can make your code shorter  
☐ It allows your code to run more easily on parallel compute hardware  
☒ All of the above

✔ Correct

Correct! All of these are benefits of vectorization!

3. True/False? To make gradient descent converge about twice as fast, a technique that almost always works is to double the learning rate  $\alpha$ .

1 / 1 point

- ☒ False  
☐ True

✔ Correct

Doubling the learning rate may result in a learning rate that is too large, and cause gradient descent to fail to find the optimal values for the parameters  $w$  and  $b$ .