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 feet² X_1	Number of bedrooms X_2	Number of floors X_3	Age of home in years X_4	Price ($) in $1000's
2104	5	1	45	460
1416	3	2	40	232
1534	3	2	30	315
852	2	1	36	178
...	...	...	...	...

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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

- True
- False

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.