Suppose *m*=4 students have taken some class, and the class had a midterm exam and a final exam. You have collected a dataset of their scores on the two exams, which is as follows:

|  |  |  |
| --- | --- | --- |
| midterm exam | (midterm exam)^22 | final exam |
| 89 | 7921 | 96 |
| 72 | 5184 | 74 |
| 94 | 8836 | 87 |
| 69 | 4761 | 78 |

You'd like to use polynomial regression to predict a student's final exam score from their midterm exam score. Concretely, suppose you want to fit a model of the form h\_\theta(x) = \theta\_0 + \theta\_1 x\_1 + \theta\_2 x\_2*hθ*​(*x*)=*θ*0​+*θ*1​*x*1​+*θ*2​*x*2​, where x\_1*x*1​ is the midterm score and x\_2*x*2​ is (midterm score)^22. Further, you plan to use both feature scaling (dividing by the "max-min", or range, of a feature) and mean normalization.

What is the normalized feature x\_1^{(3)}*x*1(3)​? (Hint: midterm = 94, final = 87 is training example 3.) Please round off your answer to two decimal places and enter in the text box below.