## HOMEWORK 4

\# Question ID Objective
$1 \quad 1.4 .3 \quad$ Compute the product of a matrix and a vector.

| 2 | 1.4 .9 | Convert between matrix <br> equations, vector <br> equations, and systems of <br> equations. |
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| 3 | 1.4 .11 | Solve matrix equations <br> using augmented matrices. |
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4 1.4.13 Characterize the span of the column vectors of a matrix.

| 5 | 1.4 .15 | Determine whether a <br> matrix equation has no <br> solution, one solution, or <br> many solutions. |
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$6 \quad 1.4 .19$
Characterize the span of the column vectors of a matrix.

| 7 | 1.4 .22 | Characterize the span of the <br> column vectors of a matrix. |
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| 8 | 1.4 .23 | Demonstrate <br> understanding of theorems <br> involving equations of the <br> form $A x=b$. |

## HOMEWORK 5

$\left.\begin{array}{|l|l|l}\text { \# } & \text { Question ID } & \text { Objective } \\ \hline 1 & 1.5 .1 & \begin{array}{l}\text { Determine if a system of } \\ \text { equations has a nontrivial } \\ \text { solution. }\end{array} \\ \hline 2 & 1.5 .5 & \begin{array}{l}\text { Solve a system of equations } \\ \text { or a matrix equation and } \\ \text { write the solution in } \\ \text { parametric form. }\end{array} \\ \hline 3 & 1.5 .10 & \begin{array}{l}\text { Solve a system of equations } \\ \text { or a matrix equation and } \\ \text { write the solution in } \\ \text { parametric form. }\end{array} \\ \hline 4 & 1.5 .15 & \begin{array}{l}\text { Solve a system of equations } \\ \text { or a matrix equation and } \\ \text { write the solution in } \\ \text { parametric form. }\end{array} \\ \hline 5 & 1.5 .22 & \begin{array}{l}\text { Find the parametric } \\ \text { equation of a line. }\end{array} \\ \hline 6 & 1.5 .23 & \begin{array}{l}\text { Demonstrate }\end{array} \\ \hline 7 & 1.5 .26 & \begin{array}{l}\text { Demerstanding of concepts } \\ \text { unders } \\ \text { relating to solution sets of } \\ \text { linear systems. }\end{array} \\ \hline 8 & \begin{array}{l}\text { Demonstrate } \\ \text { understanding of concepts } \\ \text { relating to solution sets of } \\ \text { linear systems. }\end{array} \\ \hline \text { Relate the number of pivots } \\ \text { in a matrix to the number of } \\ \text { solutions of the linear } \\ \text { system. }\end{array}\right\}$

