

WebAssign
Unit 2 Quiz (3.1, 3.2) (Quiz)

1. -/1 pointsBerrFinMath1 3.1.001.

Solve the system by graphing. (Enter your answers as a comma-separated list. If the system is inconsistent, enter INCONSISTENT. If the system is dependent, enter DEPENDENT.)

$$\begin{cases} x + y = 10 \\ x - y = 8 \end{cases}$$

$(x, y) = ($ $,$ $)$

Show My Work (Optional) 

2. -/1 pointsBerrFinMath1 3.1.004.

Solve the system by the elimination method. (Enter your answers as a comma-separated list. If the system is inconsistent, enter INCONSISTENT. If the system is dependent, enter DEPENDENT.)

$$\begin{cases} 3x + y = 19 \\ x + 2y = 18 \end{cases}$$

$(x, y) = ($ $,$ $)$

Show My Work (Optional) 

3. -/1 pointsBerrFinMath1 3.1.005.

Solve the system by the elimination method. (Enter your answers as a comma-separated list. If the system is inconsistent, enter INCONSISTENT. If the system is dependent, enter DEPENDENT.)

$$\begin{cases} x + 2y = 13 \\ 3x + 4y = 31 \end{cases}$$

$(x, y) = ($ $,$ $)$

Show My Work (Optional) 

4. -/1 pointsBerrFinMath1 3.1.006.

Solve the system by the elimination method. (Enter your answers as a comma-separated list. If the system is inconsistent, enter INCONSISTENT. If the system is dependent, enter DEPENDENT.)

$$\begin{cases} 2x + 5y = 40 \\ 2x + 3y = 32 \end{cases}$$

$(x, y) = ($ $,$ $)$

Show My Work (Optional) 

5. -/2 pointsBerrFinMath1 3.1.008.

Formulate the situation as a system of two linear equations in two variables. Be sure to state clearly the meaning of your x - and y -variables. Solve the system by the elimination method. Be sure to state your final answer in terms of the original question.

A lawyer has found 60 investors for a limited partnership to purchase an inner-city apartment building, with each contributing either \$3,000 or \$6,000. If the partnership raised \$264,000, then how many investors contributed \$3,000 and how many contributed \$6,000?

$x =$ \$3,000 investors

$y =$ \$6,000 investors

Show My Work (Optional) 

6. -/2 pointsBerrFinMath1 3.1.009.

Formulate the situation as a system of two linear equations in two variables. Be sure to state clearly the meaning of your x - and y -variables. Solve the system by the elimination method. Be sure to state your final answer in terms of the original question.

A jar contains 70 nickels and dimes worth \$5.90. How many of each kind of coin are in the jar?

$x =$ nickels

$y =$ dimes

Show My Work (Optional) 

7. -/2 pointsBerrFinMath1 3.1.010.

Formulate the situation as a system of two linear equations in two variables. Be sure to state clearly the meaning of your x - and y -variables. Solve the system by the elimination method. Be sure to state your final answer in terms of the original question.

The concession stand at an ice hockey rink had receipts of \$7400 from selling a total of 3000 sodas and hot dogs. If each soda sold for \$2 and each hot dog sold for \$3, how many of each were sold?

$x =$ sodas

$y =$ hot dogs

Show My Work (Optional) 

8. -/6 pointsBerrFinMath1 3.2.006.

Carry out the row operation on the matrix.

$$R_1 - R_2 \rightarrow R_1 \text{ on } \left(\begin{array}{cc|c} 7 & 9 & 51 \\ 5 & 8 & 54 \end{array} \right)$$

$$\left(\begin{array}{cc|c} \hline \hline \hline \end{array} \right)$$

Show My Work (Optional) 

9. -/6 pointsBerrFinMath1 3.2.007.

Carry out the row operation on the matrix.

$$\frac{1}{8}R_2 \rightarrow R_2 \text{ on } \left(\begin{array}{cc|c} 4 & -3 & -40 \\ 0 & 8 & 40 \end{array} \right)$$

$$\left(\begin{array}{cc|c} \hline \hline \hline \end{array} \right)$$

Show My Work (Optional) 

10. -/1 pointsBerrFinMath1 3.2.008.

Interpret the augmented matrix as the solution of a system of equations. (Enter your answers as a comma-separated list. If the system is inconsistent, enter INCONSISTENT. If the system is dependent, enter DEPENDENT.)

$$\left(\begin{array}{cc|c} 1 & 0 & 9 \\ 0 & 1 & -7 \end{array} \right)$$

$$(x, y) = \left(\begin{array}{c} \hline \hline \hline \end{array} \right)$$

Show My Work (Optional) 

11. -/1 points BerrFinMath1 3.2.011.

Solve the system by row-reducing the corresponding augmented matrix. (Enter your answers as a comma-separated list. If the system is inconsistent, enter INCONSISTENT. If the system is dependent, enter DEPENDENT.)

$$\begin{cases} 2x + y = 23 \\ x + y = 15 \end{cases}$$

$$(x, y) = \left(\begin{array}{c|c} & \\ \hline & \\ \hline & \end{array} \right)$$

Show My Work (Optional) 

12. -/2 points BerrFinMath1 3.2.015.

Express the situation as a system of two equations in two variables. Be sure to state clearly the meaning of your x- and y-variables. Solve the system by row-reducing the corresponding augmented matrix. State your final answer in terms of the original question.

For the final days before the election, the campaign manager has a total of \$49,000 to spend on TV and radio campaign advertisements. Each TV ad costs \$3000 and is seen by 10,000 voters, while each radio ad costs \$500 and is heard by 2000 voters. Ignoring repeated exposures to the same voter, how many TV and radio ads will contact 172,000 voters using the allocated funds?

$$\begin{aligned} x &= \text{TV ads} \\ y &= \text{radio ads} \end{aligned}$$

Show My Work (Optional) 