

← MAT230, section 30 T5 2021 SEGALA, Spring 2021

Unit 2 Quiz (3.1, 3.2) (Quiz)

INSTRUCTOR
James Segala
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Current Score	Due Date																										
<p>QUESTION <table border="1"><tr><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td></tr></table></p> <p>POINTS <table border="1"><tr><td>-/1</td><td>-/1</td><td>-/1</td><td>-/1</td><td>-/2</td><td>-/2</td><td>-/2</td><td>-/6</td><td>-/6</td><td>-/1</td><td>-/1</td><td>-/2</td></tr></table></p> <div style="border: 1px solid black; padding: 5px; display: inline-block;"> <p>TOTAL SCORE</p> <table border="1"> <tr> <td>-/26</td> <td>0.0%</td> </tr> </table> </div>	1	2	3	4	5	6	7	8	9	10	11	12	-/1	-/1	-/1	-/1	-/2	-/2	-/2	-/6	-/6	-/1	-/1	-/2	-/26	0.0%	<p>SUN, MAR 21, 2021 8:59 PM PDT</p> <div style="border: 1px solid black; padding: 5px; display: inline-block; margin-top: 10px;"> Request Extension </div>
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Assignment Submission & Scoring

Assignment Submission

For this assignment, you submit answers by question parts. The number of submissions remaining for each question part only changes if you submit or change the answer.

Assignment Scoring

Your last submission is used for your score.

1. [-/1 Points] [DETAILS](#) BERRFINMATH1 3.1.001.

[MY NOTES](#)

[ASK YOUR TEACHER](#)

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 Points] [DETAILS](#) BERRFINMATH1 3.1.004.

[MY NOTES](#)

[ASK YOUR TEACHER](#)

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.)

$$\begin{cases} 3x + y = 19 \\ x + 2y = 13 \end{cases}$$

(x, y) = (,)

[Show My Work \(Optional\)](#)

3. [-/1 Points]

DETAILS

BERRFINMATH1 3.1.005.

MY NOTES

ASK YOUR TEACHER

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.)

$$\begin{cases} x + 2y = 11 \\ 3x + 4y = 27 \end{cases}$$

$$(x, y) = \left(\begin{array}{|c|} \hline \\ \hline \\ \hline \end{array} , 5,8 \right)$$

Show My Work (Optional) ?

4. [-/1 Points]

DETAILS

BERRFINMATH1 3.1.006.

MY NOTES

ASK YOUR TEACHER

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.)

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

$$(x, y) = \left(\begin{array}{|c|} \hline \\ \hline \\ \hline \end{array} , 10,4 \right)$$

Show My Work (Optional) ?

5. [-/2 Points]

DETAILS

BERRFINMATH1 3.1.008.

MY NOTES

ASK YOUR TEACHER

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?

$$x = \begin{array}{|c|} \hline 32 \\ \hline \end{array} \text{ \$3,000 investors}$$

$$y = \begin{array}{|c|} \hline 28 \\ \hline \end{array} \text{ \$6,000 investors}$$

Show My Work (Optional) ?

6. [-/2 Points]

DETAILS

BERRFINMATH1 3.1.009.

MY NOTES

ASK YOUR TEACHER

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?

$$x = \begin{array}{|c|} \hline \\ \hline \\ \hline \end{array} \text{ nickels}$$

$$y = \begin{array}{|c|} \hline \\ \hline \\ \hline \end{array} \text{ dimes}$$

Show My Work (Optional) ?

7. [-/2 Points]

DETAILS

BERRFINMATH1 3.1.010.

MY NOTES

ASK YOUR TEACHER

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 Points]

DETAILS

BERRFINMATH1 3.2.006.

MY NOTES

ASK YOUR TEACHER

Carry out the row operation on the matrix.

$$R_1 - R_2 \rightarrow R_1 \text{ on } \left(\begin{array}{cc|c} 7 & 8 & 52 \\ 3 & 9 & 58 \end{array} \right)$$

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

Show My Work (Optional) ?

9. [-/6 Points]

DETAILS

BERRFINMATH1 3.2.007.

MY NOTES

ASK YOUR TEACHER

Carry out the row operation on the matrix.

$$\frac{1}{7}R_2 \rightarrow R_2 \text{ on } \left(\begin{array}{cc|c} 5 & -4 & -42 \\ 0 & 7 & 35 \end{array} \right)$$

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

Show My Work (Optional) ?

10. [-/1 Points]

DETAILS

BERRFINMATH1 3.2.008.

MY NOTES

ASK YOUR TEACHER

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.)

$$\left(\begin{array}{cc|c} 1 & 0 & 8 \\ 0 & 1 & -3 \end{array} \right)$$

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

Show My Work (Optional) ?

11. [-/1 Points]

DETAILS

BERRFINMATH1 3.2.011.

MY NOTES

ASK YOUR TEACHER

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.)

$$\begin{cases} 2x + y = 23 \\ x + y = 14 \end{cases}$$

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

Show My Work (Optional) ?

12. [-/2 Points]

DETAILS

BERRFINMATH1 3.2.015.

MY NOTES

ASK YOUR TEACHER

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 \$46,000 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 162,000 voters using the allocated funds?

$$x = \text{ } \text{ TV ads}$$

$$y = \text{ } \text{ radio ads}$$

Show My Work (Optional) ?

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