Assignment 0

The due date for submitting this assignment has passed. As per our records you have not submitted this assignment.

1) Maxmise \( Z = 5x + 3y \)

Subject to \( 3x + 5y \leq 15, \ 5x + 2y \leq 10, \ x \geq 0 \) and \( y \geq 0 \), are as follows.

The maximum value of \( Z \) is \( \_\_\_\_\_\_\_\_\_\_\_\_\_. \)

No, the answer is incorrect.
Score: 0
Accepted Answers:
(Type: Range) 12,13

2) Maxmise \( Z = 3x + 2y \) subject to \( x + 2y \leq 10, \ 3x + y \leq 15, \ x, y \geq 0 \).

The maximum value of \( Z \) is \( \_\_\_\_\_\_\_\_\_\_\_\_. \)

No, the answer is incorrect.
Score: 0
Accepted Answers:
(Type: Numeric) 18

3) There are four men and six women on the city council. If one council member is selected at random, how likely is it that it is a woman?

a. 0.4  
b. 0.5  
c. 0.6  
d. 0.7

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4) If \( P(A) = 2/11 \) is the probability of an event, what is the probability of the event 'not A'.

- a. \( 2/11 \)
- b. \( 9/11 \)
- c. 1
- d. \( 13/11 \)

No, the answer is incorrect.
Score: 0
Accepted Answers:
- (b)

5) Given \( P(A) = 3/5 \) and \( P(B) = 1/5 \). Find \( P(A \text{ or } B) \), if A and B are mutually exclusive events.

- a. \( 3/25 \)
- b. \( 2/5 \)
- c. \( 1/25 \)
- d. \( 4/5 \)

No, the answer is incorrect.
Score: 0
Accepted Answers:
- (d)

6) In how many ways can a team of 3 boys and 3 girls be selected from 5 boys and 4 girls?

- a. 10
- b. 4
- c. 14
- d. 40

No, the answer is incorrect.
Score: 0
Accepted Answers:
- (d)

7) How many 6-digit numbers can be formed from the digits, 0, 1, 3, 5, 7 and 9 which are divisible by 10 and no digit is repeated?
8) It is required to seat 5 men and 4 women in a row so that the women occupy the even places. How many such arrangements are possible?

No, the answer is incorrect.
Score: 0
Accepted Answers:
(Type: Numeric) 120

9) In how many ways can the letters of the word ASSASSINATION be arranged so that all the S’s together?

No, the answer is incorrect.
Score: 0
Accepted Answers:
(Type: Numeric) 2880

10) 150 workers were engaged to finish a job in a certain number of days. 4 workers dropped out on second day, 4 more workers dropped out on third day and so on. It took 8 more days to finish the work. Find the number of days in which the work was completed.

a. 25
b. 17
c. 30
d. 38

No, the answer is incorrect.
Score: 0
Accepted Answers:
(a)

11)
Which one of the following curves represents the relationship $xy = c$, where $c$ is a positive constant?

- a. I
- b. II
- c. III
- d. IV

No, the answer is incorrect.
Score: 0
Accepted Answers: (c)

12) The planes: $2x - y + 4z = 5$ and $5x - 2.5y + 10z = 6$ are

- a. Perpendicular
- b. Parallel
- c. Intersect $y$ - axis
- d. Passes through $(0, 0, 5/4)$

No, the answer is incorrect.
Score: 0
Accepted Answers: (b)

13)
Find the angle between the vectors $\hat{i} - 2\hat{j} + 3\hat{k}$ and $3\hat{i} - 2\hat{j} + \hat{k}$

a. $\cos^{-1}\left(\frac{5}{14}\right)$

b. $\cos^{-1}\left(\frac{3}{7}\right)$

c. $\cos^{-1}\left(\frac{1}{7}\right)$

d. $\cos^{-1}\left(\frac{6}{7}\right)$

No, the answer is incorrect.
Score: 0
Accepted Answers:
(a)  
(b)  
(c)  
(d)  

14) In survey it was found that 21 people liked product A, 26 liked product B and 29 liked product C. If 14 people liked products A and B, 12 people liked products C and A, 14 people liked products B and C and 8 liked all the three products. Find how many liked product C only.

a. 11  
b. 10  
c. 20  
d. 15  

No, the answer is incorrect.
Score: 0
Accepted Answers:
(a)  
(b)  
(c)  
(d)  

15)
The following is the record of goals scored by team A in a football session:

<table>
<thead>
<tr>
<th>No. of goals scored</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of matches</td>
<td>1</td>
<td>9</td>
<td>7</td>
<td>5</td>
<td>3</td>
</tr>
</tbody>
</table>

For the team B, mean number of goals scored per match was 2 with a standard deviation 1.25
Find which team may be considered more consistent?

a. A  

b. B  

c. A = B  

d. Inadequate data  

No, the answer is incorrect.
Score: 0
Accepted Answers:  
(a)