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NPTEL (<https://swayam.gov.in/explorer?ncCode=NPTEL>) » **Data Science for Engineers (course)**

 Announcements (announcements) **About the Course** (https://swayam.gov.in/nd1_noc20_cs28/preview)

Ask a Question (forum) Progress (student/home) Mentor (student/mentor)

Unit 5 - Week 3

Course outline

How does an NPTEL online course work?

Week 0

Week 1

Week 2

☒ Linear Algebra for Data science (unit? unit=14&lesson=15)

☐ Solving Linear Equations (unit? unit=14&lesson=16)

☐ Solving Linear Equations (Continued) (unit? unit=14&lesson=17)

☐ Linear Algebra - Distance, Hyperplanes and Halfspaces, Eigenvalues, Eigenvectors (unit? unit=14&lesson=18)

☐ Linear Algebra - Distance, Hyperplanes

Practice Assignment 3

The due date for submitting this assignment has passed. **Due on 2020-02-19, 23:59 IST.**
As per our records you have not submitted this assignment.

Note : This assignment is only for practice purpose and it will not be counted towards the Final score

1) A and B are two events. The probability that at least one of them occurs is given by **1 point**

☐

$$P(A \cap B^c) + P(A^c \cap B)$$

☐

$$P(A) + P(B) - P(A \cap B)$$

☐

$$P(A) + P(B) + P(A \cap B)$$

☐

$$P(A^c) + P(B^c) - 2P(A^c \cap B^c)$$

No, the answer is incorrect.

Score: 0

Accepted Answers:

$$P(A) + P(B) - P(A \cap B)$$

2) Two tube lights are installed in a room. Probability of light A failing is 0.20 while the probability of light B failing is 0.15. What is the probability that both the lights are working on a given day? (final value is rounded off to 2 decimal places) **1 point**

☐ 0.50

☐ 0.54

☐ 0.80

☐ 0.68

and Halfspaces,Eigenvalues,Eigenvectors (Continued 1) (unit? unit=14&lesson=19)	No, the answer is incorrect. Score: 0 Accepted Answers: 0.68	
<input checked="" type="radio"/> Linear Algebra - Distance,Hyperplanes and Halfspaces,Eigenvalues,Eigenvectors (Continued 2) (unit? unit=14&lesson=20)	3) Given that the random variable X follows a chi-square distribution with 4 degrees of freedom and $P(X \leq x) = 0.5$. Then the value of X is <input type="radio"/> 3.357 <input checked="" type="radio"/> -3.357 <input type="radio"/> -3.325 <input type="radio"/> 3.325	1 point
<input checked="" type="radio"/> Linear Algebra - Distance,Hyperplanes and Halfspaces,Eigenvalues,Eigenvectors (Continued 3) (unit? unit=14&lesson=21)	No, the answer is incorrect. Score: 0 Accepted Answers: -1 to 1 4) The possible values of the correlation coefficient lies between:	1 point
<input type="radio"/> FAQ (unit? unit=14&lesson=22)	<input type="radio"/> 0 to -1 <input type="radio"/> -1 to 1 <input type="radio"/> $-\infty$ to ∞ <input type="radio"/> 0 to ∞	
<input type="radio"/> Quiz : Assignment 2 - Part 1 (assessment? name=106)	No, the answer is incorrect. Score: 0 Accepted Answers: -1 to 1	
<input type="radio"/> Quiz : Linear algebra - Assignment 2 - Part 2 (assessment? name=109)	5) 50% of the employees of the ABC corporation are college graduates. Of these, 15% are in sales. Of the employees who did not graduate from college, 70% are in sales. The probability of an employee selected at random is in sales (final value is rounded off to 2 decimal places)	1 point
<input type="radio"/> Week 2 Feedback (unit? unit=14&lesson=110)	<input type="radio"/> 0.50 <input type="radio"/> 0.15 <input type="radio"/> 0.43 <input type="radio"/> 0.70	
<input checked="" type="radio"/> Solution - Assignment 2 - Part 1 (unit? unit=14&lesson=115)		
<input checked="" type="radio"/> Solution - Linear algebra - Assignment 2 - Part 2 (unit? unit=14&lesson=116)	No, the answer is incorrect. Score: 0 Accepted Answers: 0.43	
Week 3		
<input checked="" type="radio"/> Statistical Modelling (unit? unit=24&lesson=25)		
<input checked="" type="radio"/> Random Variables and Probability Mass/Density Functions (unit? unit=24&lesson=26)		

- ☐ Sample Statistics (unit? unit=24&lesson=27)
- ☐ Hypotheses Testing (unit? unit=24&lesson=28)
- ☐ FAQ (unit? unit=24&lesson=29)
- ☐ **Quiz : Practice Assignment 3 (assessment? name=92)**
- ☐ Quiz : Assignment 3 (assessment? name=111)
- ☐ Week 3 Feedback (unit? unit=24&lesson=112)
- ☒ Solution - Assignment 3 (unit? unit=24&lesson=120)

Week 4

Week 5

Week 6

Week 7

Week 8

Text Transcripts

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