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**Digital Assignment 1**

**Course Code: BMAT202L**

**Course Title: Statistics for Engineers**

1. **Calculate the coefficient of correlation between X and Y by Karl Pearson’s method.**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **X** | **25** | **30** |  | **28** | **29** | **32** | **24** | **36** | **28** | **27** | **21** |
| **Y** | **18** | **20** |  | **21** | **16** | **14** | **13** | **22** | **15** | **19** | **12** |

**Also obtain regression equations.**

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**3.**





4.



1. Calculate average speed of a car running at the rate of 15km/h during first 30 km; at 20 km/h during second 30km and at 25 km/h during the third 30km.
2. Let X be a random variable with the following probability distribution:

|  |  |  |  |
| --- | --- | --- | --- |
| x | -3 | 6 | 9 |
| P(X=x) | 1/6 | 1/2 | 1/3 |

Find E(X) and E(X2) (iii) Evaluate E(2X+1)2