

Ранговая корреляция Спирмена

Два эксперта X и Y выставили оценки десяти образцам продукции завода. Найти выборочный коэффициент корреляции Спирмена ρ_v между их оценками.¹

Задача 44.1. *Абалимов Александр*

$X = [45, 44, 39, 38, 34, 32, 29, 26, 22, 19]$

$Y = [54, 64, 31, 58, 17, 43, 48, 13, 23, 34]$

Задача 44.2. *Антощенко Анастасия*

$X = [47, 43, 40, 37, 33, 30, 27, 25, 22, 19]$

$Y = [58, 53, 63, 37, 16, 23, 28, 11, 43, 47]$

Задача 44.3. *Безруков Игорь*

$X = [46, 42, 40, 36, 35, 30, 28, 25, 22, 20]$

$Y = [59, 49, 62, 44, 23, 11, 18, 28, 52, 35]$

Задача 44.4. *Безязыков Александр*

$X = [45, 42, 41, 38, 35, 31, 27, 24, 21, 18]$

$Y = [53, 48, 62, 42, 24, 17, 12, 30, 58, 36]$

Задача 44.5. *Габбасова Камилла*

$X = [45, 43, 40, 37, 34, 32, 29, 26, 22, 19]$

$Y = [53, 64, 58, 24, 20, 44, 35, 12, 48, 29]$

Задача 44.6. *Дворский Андрей*

$X = [46, 42, 40, 38, 34, 31, 29, 25, 21, 18]$

$Y = [59, 48, 63, 31, 24, 18, 53, 12, 43, 35]$

Задача 44.7. *Демидов Александр*

$X = [46, 44, 40, 38, 35, 31, 27, 25, 23, 20]$

$Y = [58, 54, 63, 31, 16, 14, 43, 49, 35, 24]$

Задача 44.8. *Дробчик Георгий*

$X = [46, 43, 39, 37, 34, 32, 28, 24, 22, 19]$

$Y = [52, 57, 63, 36, 30, 13, 43, 48, 23, 20]$

Задача 44.9. *Кирпин Валерий*

$X = [47, 44, 39, 37, 34, 30, 27, 25, 22, 19]$

$Y = [57, 53, 47, 63, 18, 22, 14, 44, 30, 36]$

Задача 44.10. *Королева Татьяна*

$X = [46, 43, 39, 38, 34, 31, 28, 24, 21, 19]$

$Y = [53, 47, 57, 63, 30, 19, 12, 44, 22, 35]$

Задача 44.11. *Кузнецов Степан*

$X = [46, 44, 41, 36, 33, 30, 28, 26, 22, 18]$

$Y = [53, 63, 59, 24, 30, 16, 37, 13, 47, 42]$

Задача 44.12. *Майков Дмитрий*

$X = [46, 43, 39, 37, 34, 30, 27, 24, 21, 18]$

$Y = [53, 47, 37, 57, 32, 21, 13, 42, 62, 16]$

Задача 44.13. *Нессанс Эдгар Матъяс*

$X = [47, 42, 39, 36, 34, 30, 27, 25, 22, 18]$

$Y = [57, 48, 53, 35, 28, 15, 62, 12, 25, 42]$

Задача 44.14. *Ромич Антон*

$X = [45, 42, 40, 36, 33, 32, 29, 25, 22, 20]$

$Y = [52, 48, 58, 24, 29, 44, 10, 63, 34, 17]$

¹Гмурман В.Е. Руководство к решению задач по теории вероятностей и математической статистике. М.:1969. с. 202.

Задача 44.15. *Солдатов Александр*

$X = [46, 43, 40, 37, 34, 31, 28, 25, 22, 18]$

$Y = [58, 48, 28, 43, 18, 25, 63, 11, 53, 37]$

Задача 44.16. *Толмачёв Никита*

$X = [46, 43, 40, 37, 34, 30, 28, 26, 22, 19]$

$Y = [54, 48, 58, 25, 34, 17, 62, 10, 43, 30]$

Задача 44.17. *Толушкин Ростислав*

$X = [45, 44, 39, 37, 35, 31, 28, 25, 22, 20]$

$Y = [52, 63, 58, 30, 24, 11, 34, 49, 43, 18]$

Задача 44.18. *Трифонов Дмитрий*

$X = [46, 42, 40, 38, 35, 31, 28, 24, 21, 19]$

$Y = [58, 48, 63, 30, 35, 17, 13, 44, 24, 53]$

Задача 44.19. *Чумаков Иван*

$X = [45, 43, 39, 37, 34, 31, 29, 25, 22, 20]$

$Y = [52, 49, 31, 63, 25, 18, 10, 58, 35, 43]$

Задача 44.20. *Шибанов Сергей*

$X = [46, 43, 40, 37, 34, 31, 29, 25, 22, 19]$

$Y = [52, 64, 59, 43, 22, 13, 37, 28, 48, 19]$