**ŠTATISTIKA**

Meno: Petronela Čebrová

Zadanie č.3.:

 Štatistický súbor=žiaci

 Štatistická jednotka=žiak

 Rozsah štatistic. súboru: N=15

 Štatistický znak: známka(kvalitatívny)

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| Štatistické vypracovanie údajov o známkach žiakov A –O:

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|   | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O |
| matematika | 3 | 2 | 1 | 1 | 1 | 2 | 2 | 3 | 4 | 5 | 4 | 3 | 3 | 3 | 2 |
| chémia | 3 | 2 | 2 | 3 | 2 | 1 | 2 | 1 | 4 | 4 | 3 | 2 | 4 | 3 | 2 |

 |  |  |  |  |  |  |  |  |   | Známka z biológie - b |   |
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| *PREDMET : MATEMATIKA* |  |  |  |  |  |  |  |  |  |  |  |  |
| **Tabuľka č.1:** |  |  |  |  |  |  **Matematika (RP)** |  |  |  |  |
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| Matematika - AP |  |  |  |  |  |
| Známka | 1 | 2 | 3 | 4 | 5 |
| Počet žiakov | 3 | 4 | 5 | 2 | 1 |

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| **Tabuľka č.2:** Matematika - RP

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| Známka | 1 | 2 | 3 | 4 | 5 |
| Počet žiakov vyjadrený v % | 20,00 | 26,66 | 33,33 | 13,33 | 6,66 |
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| *PREDMET:CHĖMIA***Tabuľka č.1:**  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| Chémia - AP |  |  |  |  |  |
| Známka | 1 | 2 | 3 | 4 | 5 |
| Počet žiakov | 2 | 6 | 4 | 3 | 0 |

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| Tabuľka č.2: Chémia – RP

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| --- | --- | --- | --- | --- | --- |
| Známka | 1 | 2 | 3 | 4 | 5 |
| Počet žiakov vyjadrených v % | 13,33 | 40,00 | 26,66 | 20,00 | 0,00 |

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*CHARAKTERISTIKA ŠTATISTICKÉHO SÚBORU*

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|  ŽIAK | MATEMATIKA |
| C | 1 |
| D | 1 |
| E | 1 |
| B | 2 |
| F | 2 |
| G | 2 |
| O | 2 |
| A | 3 |
| H | 3 |
| L | 3 |
| M | 3 |
| N | 3 |
| I | 4 |
| K | 4 |
| J | 5 |
| SPOLU | 39 |
| PRIEMER | 2,53 |
| MODUS | 3 |
| MEDIAN | 3 |
| ŽIAK | CHĖMIA |
| F | 1 |
| H | 1 |
| B | 2 |
| C | 2 |
| E | 2 |
| G | 2 |
| L | 2 |
| O | 2 |
| A | 3 |
| D | 3 |
| K | 3 |
| N | 3 |
| I | 4 |
| J | 4 |
| M | 4 |
| SPOLU | 38 |
| PRIEMER | 2,53 |
| MODUS | 2 |
| MEDIAN | 2 |

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|  | MATEMATIKA |
| ŽIAK | x | x-x | ( x - x )2 |
| A | 3 | 0,47 | 0,22 |
| B | 2 | -0,53 | 0,28 |
| C | 1 | -1,53 | 2,35 |
| D | 1 | -1,53 | 2,35 |
| E | 1 | -1,53 | 2,35 |
| F | 2 | -0,53 | 0,28 |
| G | 2 | -0,53 | 0,28 |
| H | 3 | 0,47 | 0,22 |
| I | 4 | 1,47 | 2,15 |
| J | 5 | 2,47 | 6,08 |
| K | 4 | 1,47 | 2,15 |
| L | 3 | 0,47 | 0,22 |
| M | 3 | 0,47 | 0,22 |
| N | 3 | 0,47 | 0,22 |
| O | 2 | -0,53 | 0,28 |
|  |  | SPOLU | 19,67 |
|  |  | ROZPTYL | 1,31 |
|  |  | ODCHÝLKA | 1,14 |
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| Priemerná známka z matematiky=2,53±1,14 |
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 |
|  | CHEMIA |
| ŽIAK | y | y-y | ( y- y )2 |
| A | 3 | 0,47 | 0,22 |
| B | 2 | -0,53 | 0,28 |
| C | 2 | -0,53 | 0,28 |
| D | 3 | 0,47 | 0,22 |
| E | 2 | -0,53 | 0,28 |
| F | 1 | -1,53 | 2,35 |
| G | 2 | -0,53 | 0,28 |
| H | 1 | -1,53 | 2,35 |
| I | 4 | 1,47 | 2,15 |
| J | 4 | 1,47 | 2,15 |
| K | 3 | 0,47 | 0,22 |
| L | 2 | -0,53 | 0,28 |
| M | 4 | 1,47 | 2,15 |
| N | 3 | 0,47 | 0,22 |
| O | 2 | -0,53 | 0,28 |
|  |  | SPOLU | 13,73 |
|  |  | ROZPTYL | 0,92 |
|  |  | ODCHÝLKA | 0,96 |
|  |  |  |  |
|  |
| Priemerná známka z chémie=2,53±0,96 |
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| --- | --- |
|  | ( x - x )( y - y) |
|  | 0,22 |
|  | 0,28 |
|  | 0,82 |
|  | -0,71 |
|  | 0,82 |
|  | 0,81 |
|  | 0,28 |
|  | -0,72 |
|  | 2,16 |
|  | 3,62 |
|  | 0,69 |
|  | -0,25 |
|  | 0,69 |
|  | 0,22 |
|  | 0,28 |
| SPOLU: | 13,00 |
| KOVARIANCIA: | 0,87 |
| KORELÁCIA: | 0,78 |

Platí, že čím je lepšia známka z matematiky tak, tým je lepšia aj známka z chémie, a naopak.

Závislosť je mierna.

Legenda:

AP – absolútna početnosť

RP – relatívna početnosť