

2018 3

2018 3

| | | | |
|----|--------------|-----------|------------|
| | | | |
| 57 | 5,550,606.48 | 63,322.78 | 169,383.74 |

1.

2. = +

+ + - - - -

- -

2018 3

| | | | | | |
|--|--|--|----|--------------|--------|
| | | | | | % |
| | | | 6 | 104,509.27 | 2.8381 |
| | | | 46 | 5,239,261.22 | 3.1909 |
| | | | - | - | - |
| | | | 2 | 137,883.21 | 5.0679 |
| | | | - | - | - |
| | | | - | - | - |

1.

2.

3. 2018 1 1

4.

1

R= 1 /

* 2 / 1 -

$$\begin{aligned}
 & \frac{\sum_{i=1}^n (R_i - \bar{R})^2}{n-1} = \frac{\sum_{i=1}^n R_i^2 - n\bar{R}^2}{n-1} \\
 & R = \frac{\sum_{i=1}^n R_i}{n} \\
 & \frac{\sum_{i=1}^n R_i^2}{n} - \frac{(\sum_{i=1}^n R_i)^2}{n^2} = \frac{\sum_{i=1}^n R_i^2}{n} - \frac{(\sum_{i=1}^n R_i)^2}{n^2}
 \end{aligned}$$

2018 3

| R | | |
|---------|----|--------------|
| R 4% | 9 | 808,905.41 |
| 4% R 3% | 19 | 3,191,692.73 |
| 3% R 2% | 9 | 699,504.52 |
| 2% R 1% | 12 | 569,859.20 |
| 1% R 0% | 4 | 183,325.25 |
| R<0% | 1 | 28,366.59 |
| | 54 | 5,481,653.70 |

1. 2018 1 1

2.

R

3.

5-6