

2019 2

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

2019

R		
R 8%	-	-
8% > R 6%	8	450,248.93
6% > R 4%	36	5,713,014.35
4% > R 2%	12	432,237.22
2% > R 0%	1	228.24
R < 0%	-	-
	57	6,595,728.74

1. 2019 1 1

2.

R

3.

5-6