Noise = 0:

Noise = 1:

2:
4:

\[ y = 0.0196x + 0.0488 \]
\[ R^2 = 0.1623 \]

8:

\[ y = 0.0190x + 0.0376 \]
\[ R^2 = 0.0532 \]

16:

\[ y = 0.0261x - 0.1094 \]
\[ R^2 = 0.0272 \]
32:

\[
y = 0.0383x - 0.5480 \\
R^2 = 0.0151
\]

64:

\[
y = 0.0287x - 1.3252 \\
R^2 = 0.0020
\]

128:

\[
y = 0.0692x - 1.5783 \\
R^2 = 0.0029
\]
It is clear that at a noise of about 3 we begin to lose the trend.