Test MSE Across Polynomial Degrees and Lambda Values (Ridge Regression) 037 0.037 0.037 0.037 0.037 0.037 0.037 0.037 0.037 0.037 0.037 0.037 0.039

- 0.035

- 0.030

- 0.025

- 0.020

- 0.015

- 0.85

- 0.80

- 0.75

- 0.70

- 0.65

	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.037	0.039
- 2	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.029	0.037
m -	0.019	0.019	0.019	0.019	0.019	0.019	0.019	0.019	0.019	0.019	0.019	0.019	0.020	0.027	0.036
4 -	0.016	0.016	0.016	0.016	0.016	0.016	0.016	0.016	0.016	0.016	0.016	0.018	0.020	0.025	0.035
- 5	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.014	0.017	0.020	0.024	0.034
9 -	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.014	0.016	0.020	0.024	0.034
egree 7	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.013	0.013	0.013	0.015	0.019	0.024	0.033
omial D 8	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.013	0.013	0.015	0.019	0.024	0.033
Polyno 9	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.013	0.013	0.015	0.018	0.023	0.033
10	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.013	0.015	0.018	0.023	0.033
11	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.013	0.015	0.018	0.023	0.033
12	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.013	0.015	0.018	0.023	0.033
13	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.013	0.015	0.018	0.023	0.033
14	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.013	0.015	0.018	0.023	0.033
15	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.014	0.018	0.023	0.033
,	-15	-14	-13	-12	-10	-9	-8	$ \begin{array}{c} -7\\\log_{10}(\lambda) \end{array} $	-6	-5	-4	-2	-1	Ó	i

Test R² Across Polynomial Degrees and Lambda Values (Ridge Regression)

1	0.587	0.587	0.587	0.587	0.587	0.587	0.587	0.587	0.587	0.587	0.587	0.587	0.587	0.588	0.565
2 -	0.683	0.683	0.683	0.683	0.683	0.683	0.683	0.683	0.683	0.683	0.683	0.683	0.682	0.675	0.591
ო -	0.784	0.784	0.784	0.784	0.784	0.784	0.784	0.784	0.784	0.784	0.784	0.784	0.773	0.700	0.599
4 -	0.824	0.824	0.824	0.824	0.824	0.824	0.824	0.824	0.824	0.824	0.823	0.803	0.774	0.725	0.609
- 22	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.850	0.840	0.816	0.776	0.736	0.619
9 -	0.857	0.857	0.857	0.857	0.857	0.857	0.857	0.858	0.858	0.854	0.848	0.823	0.783	0.739	0.626
egree 7	0.865	0.865	0.865	0.865	0.865	0.865	0.865	0.864	0.859	0.857	0.851	0.828	0.789	0.738	0.631
mial D 8 -	0.869	0.869	0.869	0.869	0.869	0.869	0.868	0.867	0.862	0.857	0.852	0.832	0.793	0.738	0.635
Polync 9 -	0.869	0.869	0.869	0.869	0.870	0.869	0.870	0.869	0.866	0.859	0.853	0.835	0.795	0.739	0.636
10	0.865	0.865	0.865	0.866	0.865	0.866	0.869	0.870	0.868	0.861	0.854	0.836	0.797	0.740	0.637
11 -	0.868	0.868	0.868	0.866	0.866	0.865	0.867	0.870	0.870	0.864	0.855	0.836	0.798	0.742	0.638
12	0.865	0.865	0.866	0.865	0.866	0.866	0.866	0.869	0.870	0.866	0.857	0.836	0.799	0.743	0.638
13	0.862	0.862	0.862	0.863	0.865	0.866	0.866	0.868	0.870	0.867	0.859	0.837	0.800	0.745	0.638
14	0.862	0.862	0.862	0.864	0.864	0.866	0.866	0.868	0.870	0.867	0.861	0.838	0.800	0.746	0.638
15	0.863	0.863	0.863	0.866	0.864	0.865	0.866	0.867	0.870	0.868	0.862	0.839	0.800	0.747	0.638
	-15	-14	-13	-12	-10	-9	-8	$ \begin{array}{c} $	-6	-5	-4	-2	-1	0	1