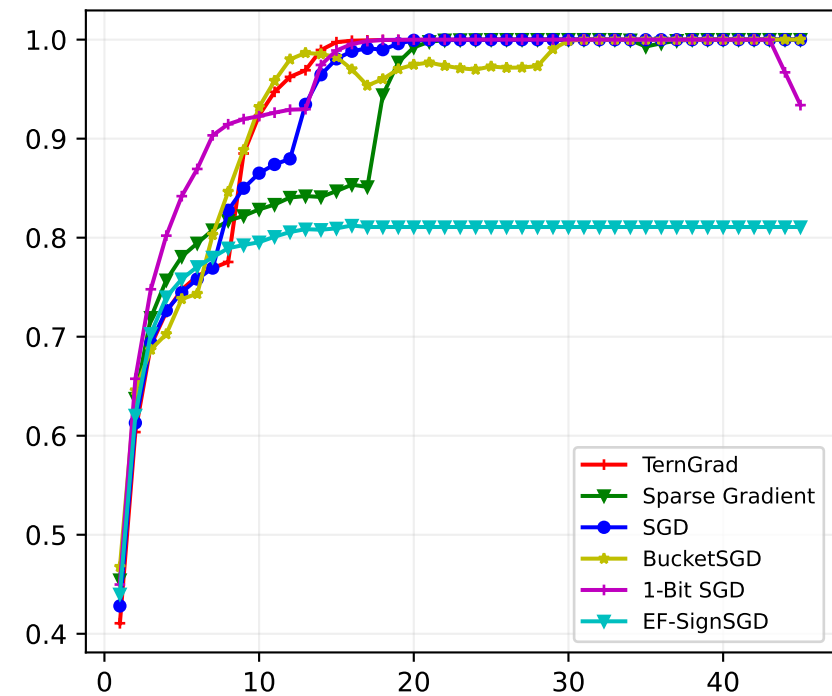
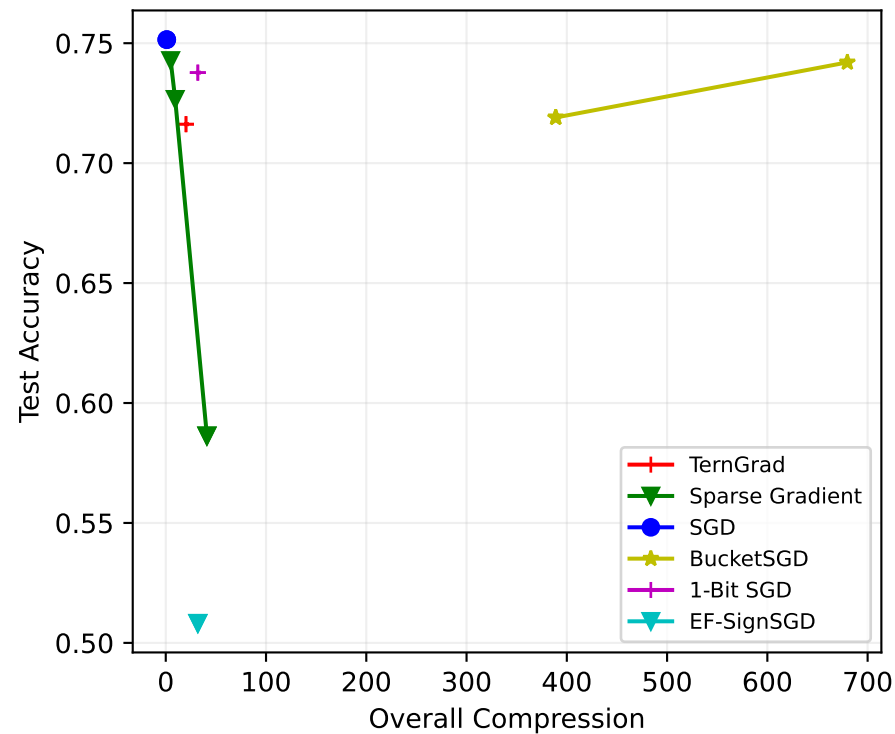
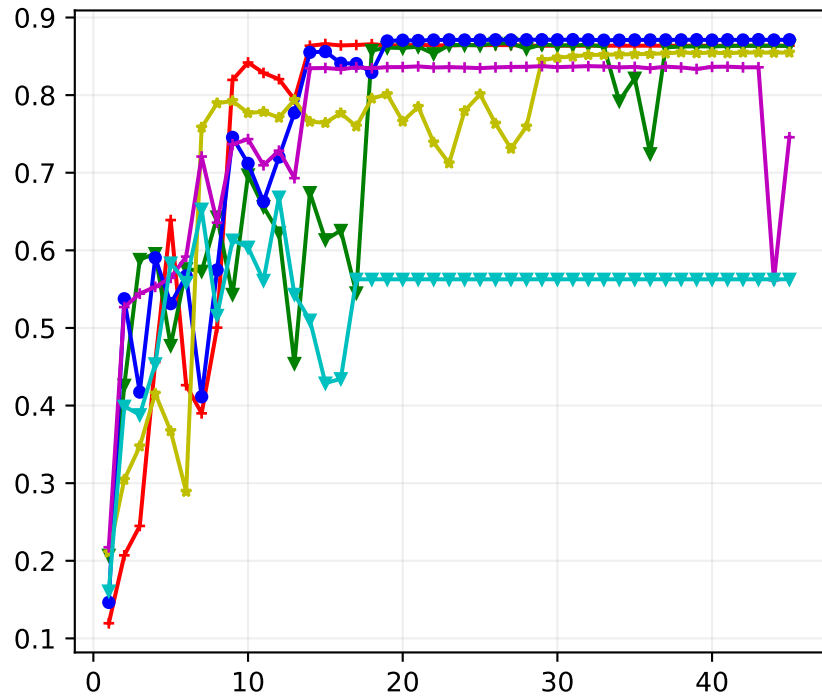


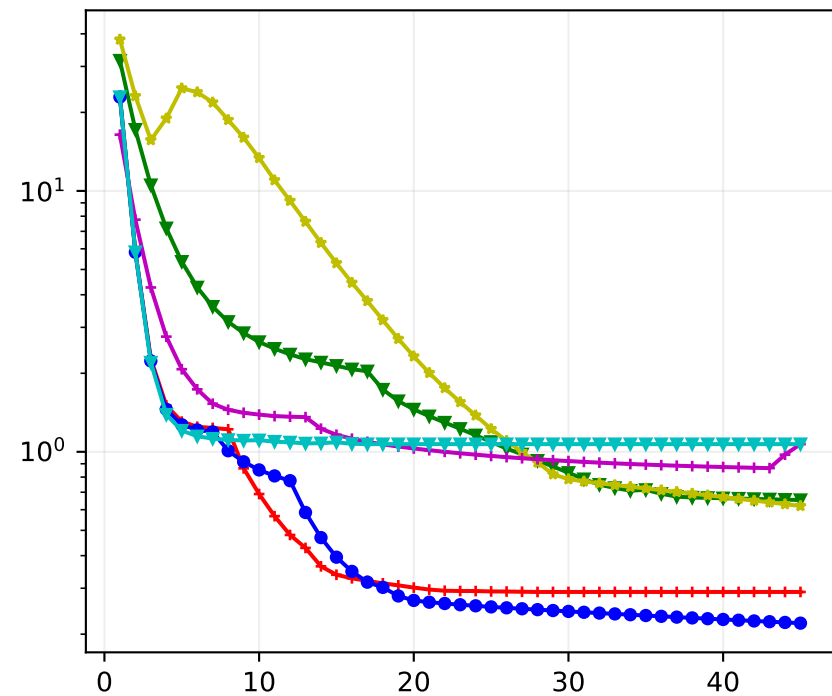
Training Accuracy



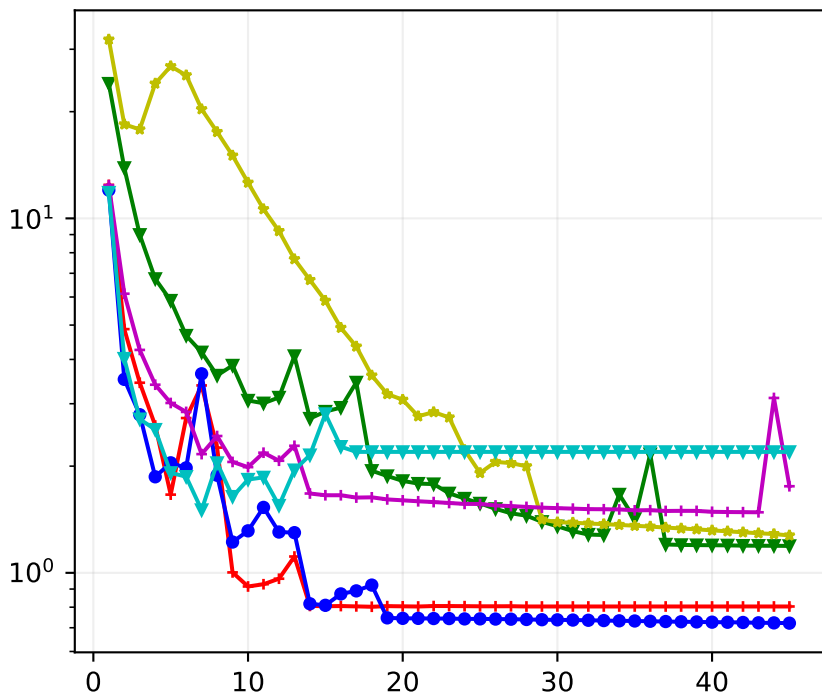
Test Accuracy



Training Loss



Test Loss



Method	Mean Test Acc	Compression Ratio
SGD	75.149	1.0
Sparse Gradient	74.28	4.89
BucketSGD	74.201	679.77
1-Bit SGD	73.773	32.0
TernGrad	71.624	20.19
EF-SignSGD	50.818	32.0