The dd command or "disk destroyer" as it is sometimes called, is used for copying data from standard input to standard output. It can copy data between files, and also between devices e.g., from computer to thumb drive. A common use of dd is to backup entire hard drives or partitions as disk images or .iso files. A quick internet search will reveal that there are many other uses for dd. The dd command uses the "option=value" syntax instead of the standard flag syntax. By default data is copied in 512 byte blocks. The block size can be altered by using the "bs=" syntax. The dd command also has the ability to do various conversions using the "conv=" syntax. There are many conversion options listed on the man pages for dd.

Before this assignment I had never heard of the dd command, so I was a little hesitant to robustly test something nicknamed "disk destroyer". However I was able to run some tests, look over the source code, and scan the internet for any mention of previously found bugs. The tests that I ran which consisted of basic data transfers and conversions between files were all successful. I also ran tests using various block sizes and I did not run into any trouble. As I looked over the source code I noticed that there was a decent amount of error checking, and the developers always checked for read/write failures. One thing I did notice is that the error messages that they provide are not very insightful. They are usually just a few words, and they don't tell you exactly where in the process something went wrong. Some people online complained that you really have to be careful when using dd because it is quite easy to get the "option=value" commands mixed up and cause some serious damage to your machine or external device. To summarize I would say that dd is a fairly solid utility that can be useful in many different situations.