MODE BITS REFERENCE

Mode Bits

Permission	File	Directory
read (r)	The user has the permission to read the file.	The user can list the files in the folder
write (w)	The user has the permission to write to a file. This however does not guarantee that he can delete it.	The user can remove, add or rename files in this folder.
execute (x)	The user can execute the file	The user can enter this folder and access files. But he cannot list the files (*ls*) unless *read* is also set.

String vs. Octal Equivalence

String	Digit
---	0
--x	1
-w-	2
-wx	3
r--	4
r-x	5
rw-	6
rwx	7

chmod Examples

Before	chmod	After
rwxrw-r--	chmod o+x	rwxrw-r-x
rwxrw-r--	chmod a=r	r--r--r-- ('a' stands for all)
rwxrw-r--	chmod g-w	rwxr--r--
rwxr-xr--	chmod 744	rwxr--r--
rwxr--r--	chmod a+rwx	rwxrwxrwx

Further Reference:

[1] man chmod

[2] Wikipedia: https://en.wikipedia.org/wiki/File_system_permissions

[3] Wikipedia: https://en.wikipedia.org/wiki/Umask