Unix permission reference card

Octal digits, rwx triplets, special bits and the modes you actually type

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DIGIT	PRINTS AS	GRANTS
0	`---`	No permission at all
1	`--x`	Execute only; traverse an exact known path
2	`-w-`	Write only; truncate and append work, reading does not
3	`-wx`	Drop-box: create and remove by name, no enumeration
4	`r--`	Read only; scripts will not run, directories can be listed
5	`r-x`	The usual directory mode
6	`rw-`	The usual data-file mode
7	`rwx`	Full control; the executable-file mode

NOTES

A mode is three of these digits: 644 is rw- r-- r-- and 755 is rwx r-x r-x.

Special bits sit in front: 4000 setuid, 2000 setgid, 1000 sticky — a 1777 directory lets anyone create files but only owners delete them.

umask subtracts at creation time: with umask 022 a request for 777 lands as 755, and a request for 666 lands as 644.