

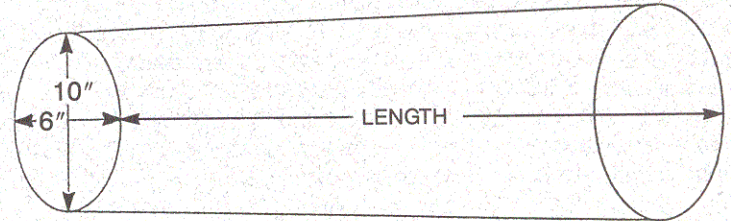


LOG VOLUME & BOARD FEET (IMPERIAL MEASUREMENT)

LOG VOLUME

As a rule, logs on the ground can be measured more accurately than those in standing trees. The two measurements usually made are: the diameter at the small end of the log, and the length of the log.

The diameter can be measured using an ordinary yardstick or carpenter's tape. Diameters are measured inside the bark. If the end of the log is greatly out of round, an average of the large and small dimensions is used (e.g. $\frac{10 + 6}{2} = 8$ cm)



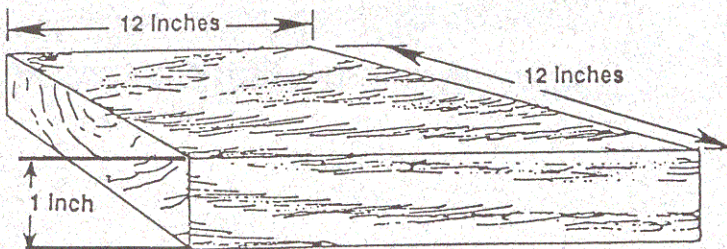
LOG VOLUME IN BOARD FEET OF TAPERING CYLINDERS

Diameter (inches) (small end)	LENGTH OF LOG (FEET)					
	6	8	10	12	14	16
	CONTENTS IN BOARD FEET					
6	5	10	10	15	15	20
7	10	10	15	20	25	30
8	10	15	20	25	35	40
9	15	20	30	35	45	50
10	20	30	35	45	55	65
11	25	35	45	55	70	80
12	30	45	55	70	85	95
13	40	55	70	85	100	115
14	45	65	80	100	115	135
15	55	75	95	115	135	160
16	60	85	110	130	155	180
17	70	95	125	150	180	205
18	80	110	140	170	200	230
19	90	125	155	190	225	260
20	100	135	175	210	250	290
21	115	155	195	235	280	320
22	125	170	215	260	305	355
23	140	185	235	285	335	390
24	150	205	255	310	370	425
25	165	220	280	340	400	460
26	180	240	305	370	435	500
27	195	260	330	400	470	540
28	210	280	355	430	510	585
29	225	305	385	465	545	630
30	245	325	410	495	585	675

Table Log Scale, International Rule, 1-4" Saw Kerf

BOARD FEET

The board-foot unit is still a popular unit of measure and is easy to define. It is the amount of wood in a piece measuring 12 inches square and 1 inch thick.



That means that the amount of wood in a board-foot equals $(1) \times (12) \times (12) = 144$ cubic inches. This makes it easy to calculate the number of board feet in lumber of any size. For instance, a 2" x 4" that is 8 feet long has...

$$\frac{(8 \text{ ft}) \times (12''/\text{ft}) \times (2) \times (4)}{144} = 5.3 \text{ Board Feet}$$

Simplified, you can multiply length in feet times width and thickness in inches and divide by 12...

$$\frac{(8) \times (2) \times (4)}{12} = 5.3 \text{ Board Feet}$$

Tables based on lumber-yield formulas are then produced to give the foot board measure (fbm) yield of a log where the diameter in inches and length in feet are known.