## **A Matter of Scale**



If you refer to the **scale** of something, you are referring to its **size** or extent, especially in relationship to the "real" world. A **scale model** is a representation or copy of an object that is larger or smaller than the actual size of the object being represented but has all the same parts and features. The scale factor is the ratio between the size of that item to its size in the "real" world.

Worrying about scale, in the miniaturist's world, is a fairly recent phenomenon. Early dollhouses such as the Dutch Baby Houses, paid little or no attention to the relative size of furniture, dolls and accessories, in relation to the size of the rooms. So, you might see a 7" tall baby doll standing next to a 4" tall adult male doll, sitting on a 1" tall chair, in a room with a 12" ceiling. To our eyes today, this looks very odd, but it was common in early dollhouses. 1:12 scale (sometimes called 1-inch scale) gained widespread acceptance amongst collectors of artisan miniatures when it was chosen in 1921 as the scale for Queen Mary's Dolls House. At a time when imperial rulers were marked in 1/12 of an inch, this was, and continues to be, a popular size, which allows for the creation of greatly detailed miniatures. Mrs. James Ward Thorne of Chicago copied this scale in the 1930's when she painstakingly created the Thorne rooms at a scale of one inch to one foot. Today, miniaturists refer to that as 1:12 scale. Since the British established 1:12 scale, they have moved to a metric system. It is amusing to think that the birthplace of miniatures, Holland and England, are now both metric countries, and yet dollhouses and miniatures continue to be measured in Imperial units. (The metric equivalent of 1:12 scale, or one inch to the foot, is 4 millimeters to 4.7 centimeters, nowhere near as catchy or as easy to remember.)

Today, there are a wide number of miniature scales. The most common ones are shown in the following table:

Scale	Common Name	Comments		
1:6	Barbie scale or play scale.	One inch in Barbie's world is 6" in the real world.		
1:12	One inch or one-twelfth scale	This is the standard scale for most dollhouse enthusiasts. Or at least, this is where most people start, until they run out of room, and switch to smaller scales.		
1:16	Three-quarter scale	This was a popular scale in the 1930's to 1950's. Collectible houses and furniture in this scale include pieces from Tri-ang (a British Manufacturer), Marx (Little Hostess, Amanda Ann), and Petite Princess (by Ideal, marketed in the U.S.).		
1:18	Two-thirds scale	The popular Lundby dollhouses, made in Sweden, are this scale.		
1:24	Half Scale	A half-inch in miniature is equivalent to a foot in the "real" world. Or, one inch represents 2 feet (24 inches) in the real world.		
1:48	Quarter scale	A quarter inch in miniature is equivalent to a foot in the real world. Or, 1 inch in miniature equals four feet in the real world.		
1:144	Micro-scale	This is a "dollhouse for the dollhouse". In other words, if you put a dollhouse in a one twelfth scale house, the furniture and building are actually 1:144.		

To make things even more complicated, other folks who like miniatures (like railway hobbyists, or Dungeons and Dragons aficionados) use different scales! There are many items to be found in a railway supply store or a table-top gaming workshop that can be purchased to fit into your dollhouse or roombox, especially if you are working in the smaller scales. In particular, check out the array of trees, foliage and plants. To help you select the right scale, here are some equivalencies:

- 1/2" is G (garden railway) scale or 1/24
- 1/4" is O scale or 1/48
- 28 mm, the standard size for table top gaming, is slightly smaller than 1:48 scale.
- S scale, 1/64
- HO scale 1/87
- N scale 1/160--close enough to 1:144 for some things to be useful
- Z scale 1/220

If you are trying to decide what scale items might be, or you want to build your own, the following list gives you some bench marks. But remember the most important bench mark: whether it looks "right". Many items come in a variety of sizes, so a small mirror in a 1:12 scale dollhouse, could also be a large mirror in a quarter scale house.

Item	"Real" Life	1:6 scale	1:12 scale	1:24 scale	1:48 scale
Ceiling	8 to 10 feet	16 to 20 inches	8 to 10 inches	4 to 5 inches	2 to 2 ½ inches
Doorway (height)	7.5 feet	15 inches	7 ½ inches	3 ¾ inches	2 7/8 inches
Doorway (width)	30 to 36 inches	5 – 6 inches	2 ½ to 3 inches	1 ¼ to 1 ½ inches	5/8 to ¾ inches
Adult man	6 feet	12 inches	6 inches	3 inches	1 ½ inches
Adult woman	5 ½ feet	11 inches	5 ½ inches	2 ¾ inches	
Counter (from floor)	36 inches	6 inches	3 inches	1 ½ inches	¾ inch
Table top (from floor)	30 inches	5 inches	2 ½ inches	1 ¾ inches	7/8 inch
Chair seat (from floor)	18 inches	3 inches	1 ½ inch	¾ inch	3/8 inches
Bed (from floor)	18 inches	3 inches	1 ½ inch	¾ inch	3/8 inches

When designing plans to construct your own miniatures, the best advice is to arm yourself with a good tape measure, and actually measure the item you want to replicate in miniature. Then, divide by 12 to find its size in one inch scale, divide by 24 to get the size in half inch scale, and divide by 48 to get the size in quarter scale.

One last hint... in purchasing fabric it is often difficult to determine whether the print is "in scale". When you go shopping, take along a piece of card in which you have cut a one inch square hole. Lay this on the fabric to see if the print fits within the hole. If it doesn't, it is out of scale. For Barbie fabric, use a 2 inch hole, and for smaller scales, use the appropriate size (1/2 inch for half scale, and 1/4 inch for quarter scale).