

At a scale of 23 yards per light-year (or 75 per parsec), then
 From edge to edge of Pluto's orbit: 1.03 inches
 Average distance from Earth to Sun: 0.013 inches
 Diameter of our star the Sun: 0.00012 inches

In the diagrams,
 The innermost ring extends 8 parsecs (600 yards) from the Sun, far enough to include Vega and Altair of the Summer Triangle. Each line is one parsec (75 yards).

The middle ring extends 30 parsecs (2250 yards, 1.25 miles), far enough to include the Big Dipper's stars. Each line is 5 parsecs (375 yards).

The outermost ring extends 600 parsecs (25 miles), far enough to include the supergiant star Deneb, the third member of the Summer Triangle, more than 100,000 times as luminous as our Sun. Each line is 50 parsecs (3750 yards, 2.1 miles).

(Thanks to Guy Ottewell's "Astronomical Companion" for inspiration!)

Bearing is in degrees, measured counterclockwise.
 Bearing of 0 degrees is toward the center of our Milky Way.
 Bearing of 90 degrees is the direction the Milky Way rotates.
 Distance (in Milky Way plane) and Height in yards (yd) or miles (mi).

Bearing	Distance	Height	Luminosity	Star Name
0	0 yd	0 yd	1	Sun
316	100 yd	-1.6 yd	2.3	Alpha Centauri
214	260 yd	59 yd	10	Procyon
48	380 yd	-60 yd	16	Altair (Summer Triangle)
21	240 yd	-520 yd	25	Fomalhaut
227	200 yd	-31 yd	30	Sirius
133	950 yd	1600 yd	36	Megrez (Big Dipper cluster)
192	710 yd	310 yd	44	Pollux
67	550 yd	190 yd	69	Vega (S. Triangle)
141	920 yd	1700 yd	83	Phecda (Big Dipper)
113	850 yd	1600 yd	91	Mizar (Big Dipper)
122	900 yd	1600 yd	140	Alioth (Big Dipper)
15	300 yd	790 yd	160	Arcturus
163	970 yd	77 yd	190	Capella
101	970 yd	2100 yd	210	Alkaid
143	1800 yd	2200 yd	330	Dubhe
197	3.1 mi	-1500 yd	1400	Bellatrix
123	5 mi	4400 yd	3300	Polaris
215	8.9 mi	-5300 yd	9100	Saiph (Orion's foot)
204	11 mi	-6400 yd	12000	Mintaka (Orion's Belt)
200	5.5 mi	-1500 yd	13000	Betelgeuse (Orion's Shoulder)
352	7.6 mi	3600 yd	16000	Antares
205	17 mi	-9100 yd	44000	Alnilam (Orion's Belt)
209	9.1 mi	-7600 yd	58000	Rigel (blue supergiant, Orion's foot)
84	25 mi	1600 yd	130000	Deneb (yellow supergiant, S. Triangle)

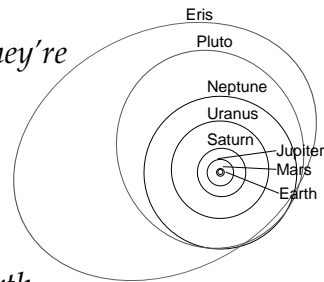
Walk to the Stars

Imagine building a scale model of the nearby stars, with the nearest star, Alpha Centauri, placed 100 yards away.

Sirius, the Dog Star, is about 200 yards away.

The bright stars of the Big Dipper hover a mile above our heads. (In the real world, they're about 4, 8, and 70 light years from Earth.)

How big would the Solar System be?



Here it is, to the same scale!

The Sun is 1/100000th inch across, with Earth some 1/80" from it. Even Neptune, the most distant full-fledged planet, is only half an inch from the Sun.