

Title:

The Traveling Salesman (Starting in Boise)

Solution:

The distances between the various cities, as measured in centimeters on the model, are shown on the table below.

	Olympia	Salem	Boise	Helena	Sacramento	Carson City	Salt Lake City	Cheyenne	Denver	Santa Fe	Phoenix
Olympia		14.1	29.8	42.2	51.2	48.3	60.2	85.1	90.4	105	98.3
Salem	14.1		29.5	49.1	38.1	36.9	56.8	86.2	90.3	101.5	89.7
Boise	29.8	29.5		24.9	41.6	34	30.5	56.7	61.1	75.1	72.2
Helena	42.2	49.1	24.9		66.5	58.4	39.6	47.8	55	76.8	85.8
Sacramento	51.2	38.1	41.6	66.5		9.3	46.9	82.4	82.7	82.9	59.1
Carson City	48.3	36.9	34	58.4	9.3		37.7	73.1	73.6	75.2	54.7
Salt Lake City	60.2	56.8	30.5	39.6	46.9	37.7		35.3	36.2	44.7	46.2
Cheyenne	85.1	86.2	56.7	47.8	82.4	73.1	35.3		8.7	36.2	64
Denver	90.4	90.3	61.1	55	82.7	73.6	36.2	8.7		27.5	57.9
Santa Fe	105	101.5	75.1	76.8	82.9	75.2	44.7	36.2	27.5		38.8
Phoenix	98.3	89.7	72.2	85.8	59.1	54.7	46.2	64	57.9	38.8	

If the starting city is Boise, the shortest path of 276.6 cm is

Boise – Helena – Olympia – Salem – Sacramento – Carson City – Salt Lake City – Cheyenne – Denver – Santa Fe – Phoenix

The path from Boise with the second shortest length of 284.6 cm is

Boise – Helena – Olympia – Salem – Carson City – Sacramento – Salt Lake City – Cheyenne – Denver – Santa Fe – Phoenix