

PUZZLE #6

WORKSHEET (also see hint below)

		Power						Cars			Consist						Destination						
		2-8-0	2-8-2	2-10-2	FA/FB	F-3	GP-7	Loads	MTYs	Total	Box	Flat	Coal	Ref'r	Stock	Tank	Colo. Springs	Grand Junction	Laramie	Pueblo	Salt Lake City	So. Denver	
Departure Order	1																						
	2																						
	3																						
	4																						
	5																						
	6																						
Destination	Colo. Springs																						
	Grand Junction																						
	Laramie																						
	Pueblo																						
	Salt Lake City																						
	So. Denver																						
Consist	Box																						
	Flat																						
	Coal Car																						
	Refrigerator																						
	Stock																						
	Tank																						
Cars	Loads																						
	MTYs																						
	Total																						

Hint: Since no two trains carried the same number of cars, each consist is a unique number created by adding 2, 4, 6, 8, 10, or 12 (the number of loads) to 1, 3, 5, 7, 9, or 11 (the number of empties). The chart below shows the possible combinations.

	1	3	5	7	9	11
2	3	5	7	9	11	13
4	5	7	9	11	13	15
6	7	9	11	13	15	17
8	9	11	13	15	17	19
10	11	13	15	17	19	21
12	13	15	17	19	21	23

← *Boxcars, 8+11*

← *Salt Lake City, 12+9*

From clue #1, the train to Salt Lake City—which is *not* the boxcar train—has 12 loads plus 9 empties.

Also from clue #1, the train of boxcars has a total of 19 cars, but this train could not have 10 loads plus 9 empties nor 12 loads plus 7 empties [since either would conflict with the 12 loads & 9 empties on the Salt Lake City train]. Therefore the only combination possible for the boxcar train is 8 loads and 11 empties. Crossing out the other cells in these rows and columns will indicate what other combinations are possible. For example, the 2-10-2 train has 17 cars (per clue #5); it must have 10 loads and 7 empties, since this is the only remaining possible combination of 17 cars.