Score (P)	Rank (C)	C-.5	$R = 100\frac{(C-.5)}{20}$
55	1	0.5	2.5
56	2	1.5	7.5
56	3	2.5	12.5
57	4	3.5	17.5
60	5	4.5	22.5
60	6	5.5	27.5
61	7	6.5	32.5
61	8	7.5	37.5
62	9	8.5	42.5
64	10	9.5	47.5
72	11	10.5	52.5
72	12	11.5	57.5
76	13	12.5	62.5
76	14	13.5	67.5
76	15	14.5	72.5
77	16	15.5	77.5
77	17	16.5	82.5
77	18	17.5	87.5
79	19	18.5	92.5
79	20	19.5	97.5

$$P = PL + (PH - PL)\frac{(R-RL)}{(RH-RL)}$$

Where R is the known percentile rank, RH and RL are the lower and higher percentile ranks in the table that bracket R, and PH and PL are the corresponding percentile points for RH and RL. For this example:

$$P_{90} = 77 + (79 - 77)\frac{(90-87.5)}{(92.5-87.5)} = 78$$

R = 90

Now find P_{50}

R = 50

RL = 47.5

RH = 52.5

PL = 64

PH = 72

$$P = 64 + (72-64)\frac{50-47.5}{52.5-47.5} = 68$$

$P_{50} = 68$