

Exercise:

Using the 3 generalised preference criteria on the next slide, calculate the aggregated preference index for each pair of alternatives

$P_1(a, b)$

1

0

10

$d = f(b) - f(a)$

*(Switched because C1 is minimising)*

Manpower (C1)

$P_2(a, b)$

1

0

30

$d = f(a) - f(b)$

Power Consumption (C2)

$P_4(a, b)$

1

0.5

0

10

60

$d = f(b) - f(a)$

*(Switched because C4 is minimising)*

Annual Maintenance Cost (C4)

Aggregated  
preference  
indices



$$P(A_1, A_2) =$$

$$P(A_1, A_2) =$$

$$P(A_2, A_1) =$$

$$P(A_2, A_3) =$$

$$P(A_3, A_1) =$$

$$P(A_3, A_2) =$$

	$C_1$	$C_2$	$C_4$
	min	max	min
$A_1$	80	90	54
$A_2$	65	58	97
$A_3$	83	60	72

(Criteria are  
all weighted  
the same)

Next step:

Calculate the positive outranking flow,  
negative outranking flow, and net outranking  
flow for each alternative