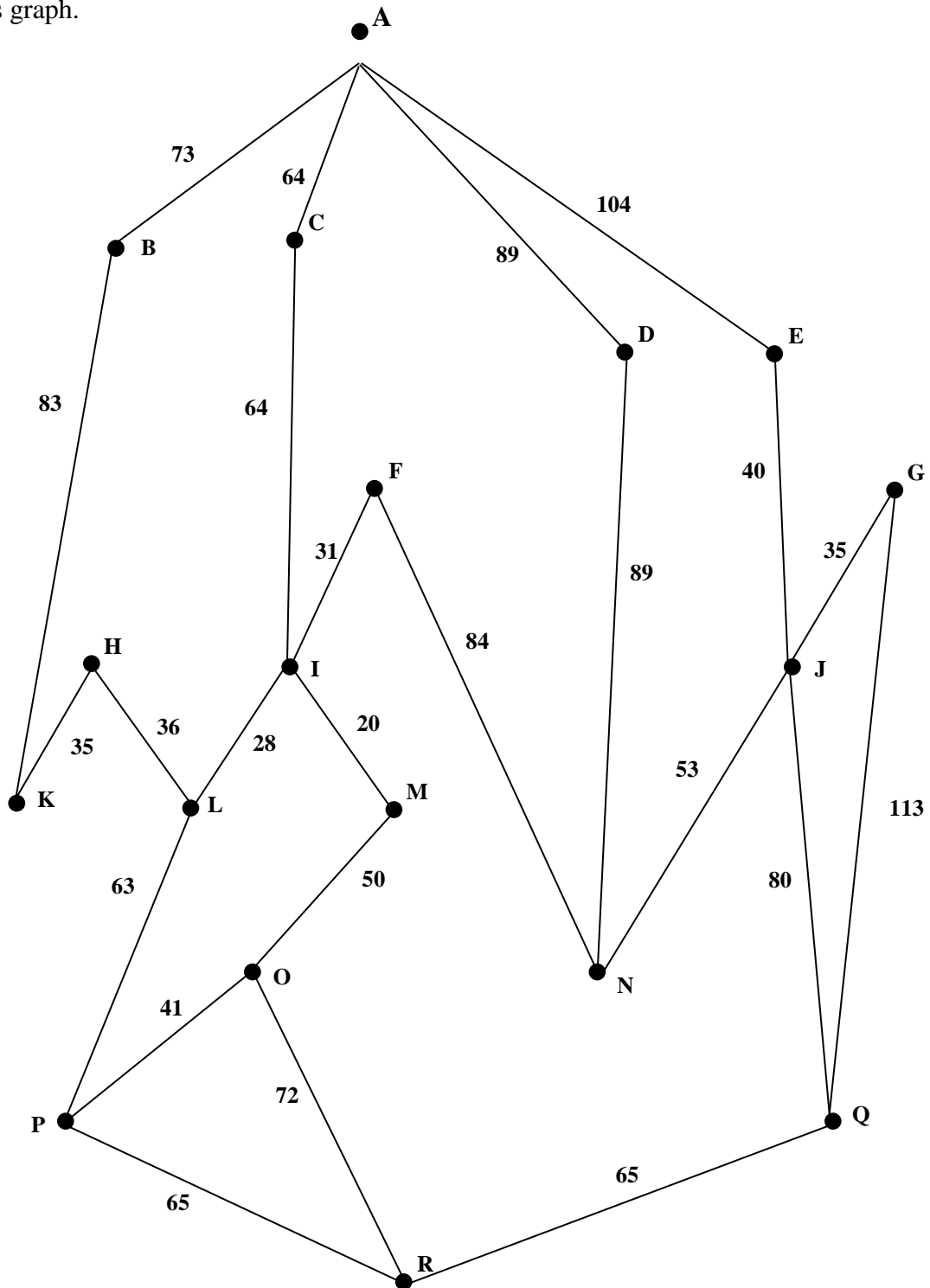


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1. Consider the following map (not drawn to scale). Apply all the heuristic algorithms on this graph.



Route is from A to R, using the following cost functions
 $g(n)$ = the distance between each town (shown on map)

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$h(n)$ = the straight line distance between any town and town R. These distances are given in the table below

Straight Line Distance to R

A	240
B	186
C	182
D	163
E	170
F	150
G	165
H	139
I	120
J	130
K	122
L	104
M	100
N	77
O	72
P	65
Q	65
R	0

State the order in which the nodes were expanded. State the route that is taken, and give the total cost.