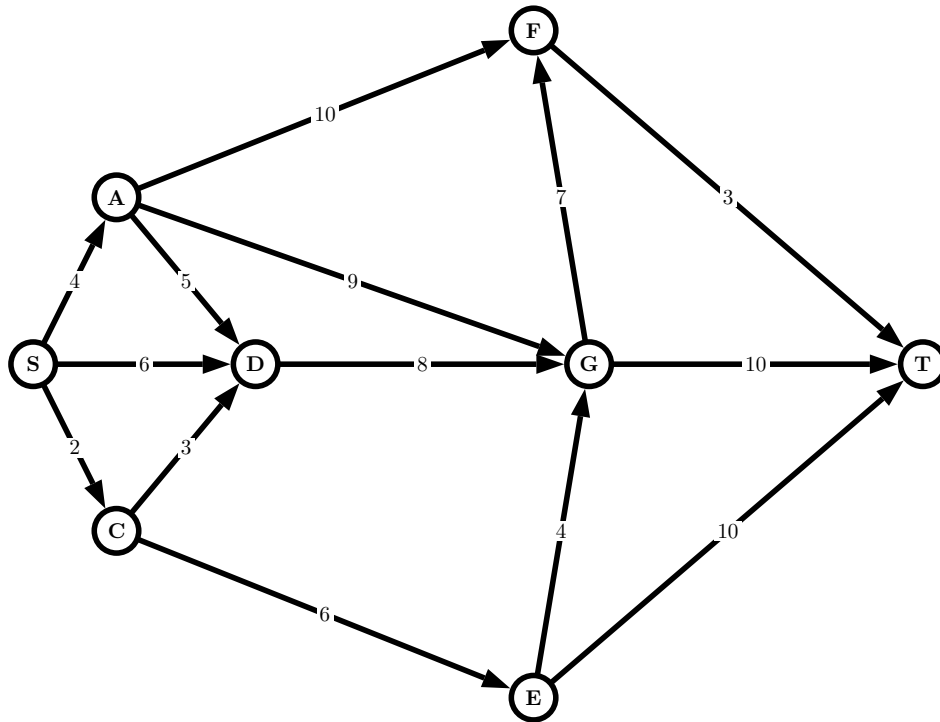


Mathematics for Computer Science, CM0167,
Example class, Week 6,
Dr David Marshall

1. Find a minimum spanning tree for the weighted graph below using Prim's algorithm.



2. Find an upper and lower bound for the *Travelling Salesperson Problem* for the cities A, B, C, D, E and F .

	A	B	C	D	E	F
A	–	64	38	28	42	29
B	64	–	27	46	18	9
C	38	27	–	55	25	9
D	28	46	55	–	12	25
E	42	18	25	12	–	31
F	29	9	9	25	31	–

3. Find the shortest path from S to T in the digraph below using Dijkstra's algorithm. Show your working with tables.

