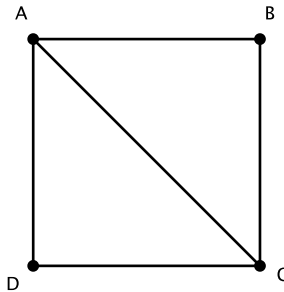# MA111 — Quiz #2 Solutions
Friday, September 18

1. For the distance table shown below, find a tour using the Nearest-Neighbor Algorithm, starting with A, and give its total cost.

	A	B	C	D
A	$-$	48	28	22
B	48	$-$	32	20
C	28	32	$-$	18
D	22	20	18	$-$

A, D, C, B, A with cost 120.

2. Consider the following graph:

(a) List all of the Hamilton paths.

$$
\begin{array}{llll}
A, B, C, D & B, A, C, D & C, B, A, D & D, A, B, C \\
A, D, C, B & B, A, D, C & C, D, A, B & D, A, C, B \\
           & B, C, A, D &   & D, C, A, B \\
           & B, C, D, A &   & D, C, B, A
\end{array}
$$

(b) Using A as a reference point, list all of the Hamilton circuits.
    A,B,C,D,A; A,D,C,B,A.