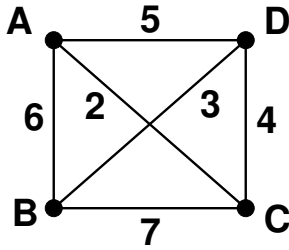


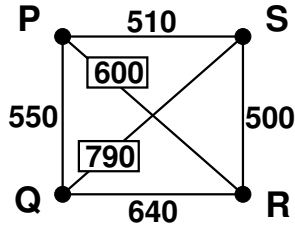
In Exercises 1–4, use the brute force algorithm to find a minimum Hamilton circuit for the graph from among those listed. Put a star (★) next to the best one(s) found in each exercise.

Exercise 1.



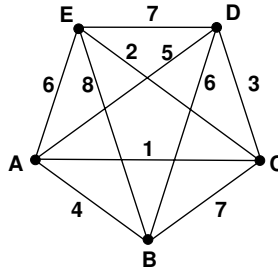
Circuit	weight
ABCD	
ABDC	
ACBD	
ACDB	
ADBC	
ADCBA	

Exercise 2.



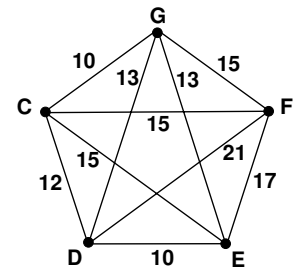
Circuit	weight
PQRSP	
PQSRP	
PRQSP	
PRSQP	
PSQRP	
PSRQP	

Exercise 3.



Circuit	weight
ABCDEA	
ABCEDA	
ABDCEA	
ABDECA	
ABECDA	
ABEDCA	
ACBDEA	
ACBEDA	
ACDBEA	
ACDEBA	
ACEBDA	
ACEDBA	

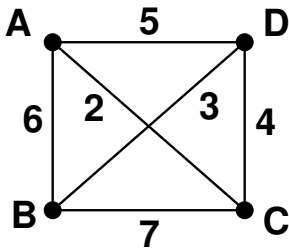
Exercise 4.



Circuit	weight
CDEFGC	
CDEGFC	
CDFEGC	
CDFGEC	
CDGFC	
CDGFEC	
CEDFGC	
CEDGFC	
CEFDGC	
CEFGDC	
CEGDFC	
CEGFDC	

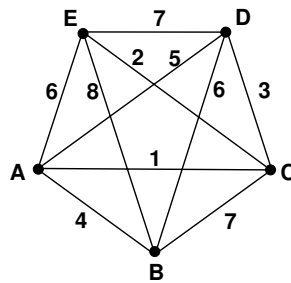
In exercises 5–8, use the nearest neighbor algorithm to determine an approximate solution to the Traveling Salesperson Problem.

Exercise 5.



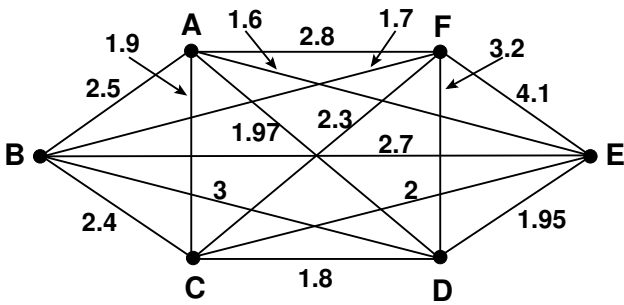
Start Pt	Circuit	weight
A		
B		
C		
D		

Exercise 6.



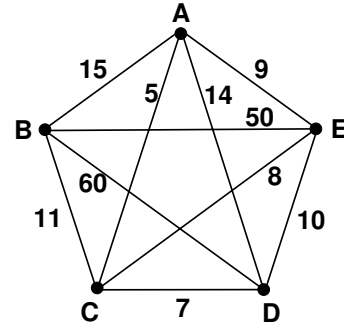
Start Pt	Circuit	weight
A		
B		
C		
D		
E		

Exercise 7.



Start Pt	Circuit	weight
A		
B		
C		
D		
E		
F		

Exercise 8.



Start Pt	Circuit	weight
A		
B		
C		
D		
E		

1. Which of the circuits that you found in part in Exercises 7 & 8 gives the best solution to the problem?

7:

8:

2. Just by looking carefully at the graph, find a Hamilton circuit which has lower total weight than any of the circuits you found in Exercise 8.