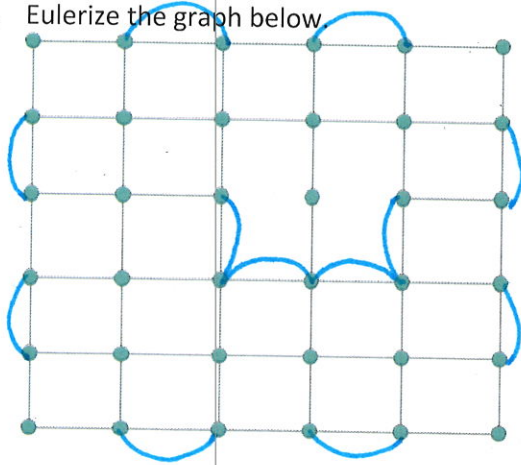


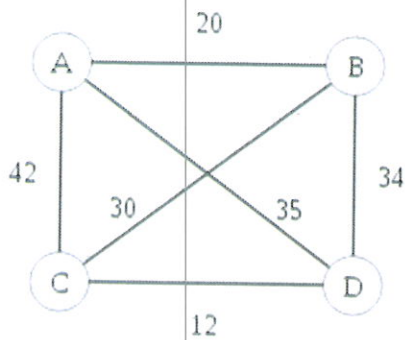
Instructions: Show all work. Use exact answers unless otherwise directed to round.

1. Eulerize the graph below



Answers may vary
only repeat existing edges
no odd edges left

2. Use Brute Force to find the lowest cost Hamilton circuit.

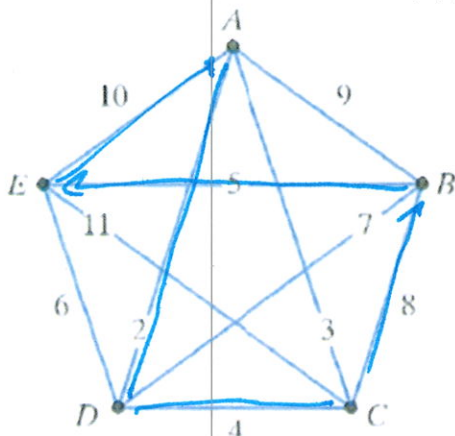


$ABCD A = 20 + 30 + 12 + 35 = 97$
 $ABDC A = 20 + 34 + 12 + 42 = 108$
 $ACBDA = 42 + 30 + 34 + 35 = 141$
 $ACDBA$
 $ADBCA$
 $ADCBA$

$\frac{n(n-1)}{2} = \frac{4(3)}{2} = 6$

ABCD A or any sequence that includes these edges is cheapest

3. Use Nearest Neighbor to find the (approximately) lowest cost Hamilton circuit.



Starting at A

ADCBEA

$2 + 4 + 8 + 5 + 10 = 29$