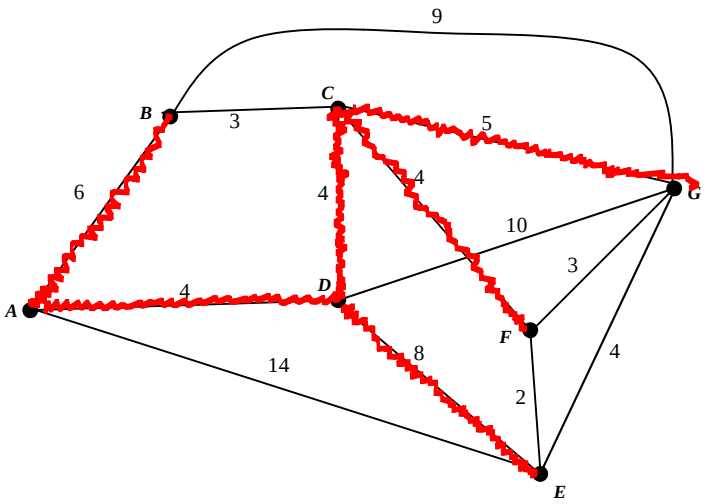
Sec 7.8 – Shortest Route Algorithm
Networks & Graphs

Name:

1. Find the shortest path to each vertex from Point A.



STEP #1: ~~AB; 6~~, ~~AD; 4~~, ~~AE; 14~~

STEP #2: ~~ADC; 8~~, ~~ADG; 14~~, ADE; 12

STEP #3: ~~ABC; 9~~, ~~ABG; 15~~

STEP #4: ~~ADCG; 15~~, ADCF; 12

STEP #5: ~~ADEF; 14~~, ~~ADEG; 16~~

STEP #6: ~~ADCFG; 15~~

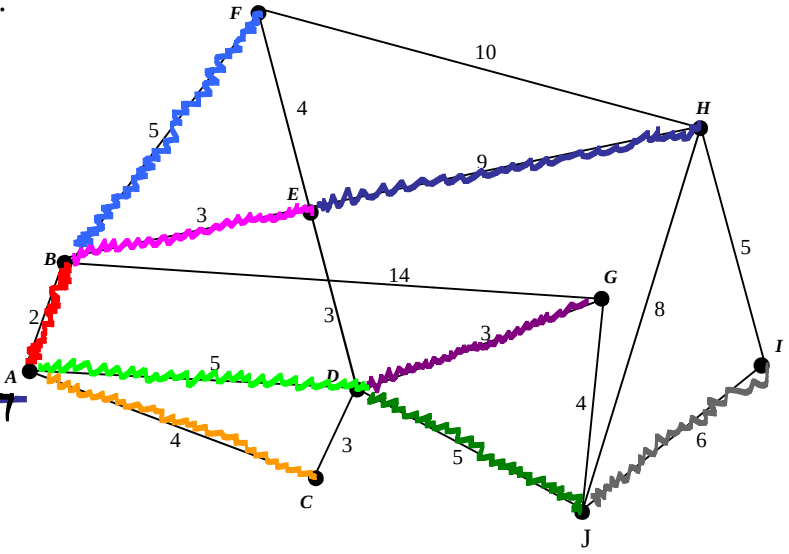
Shortest Distance From:

AB= 6 AE= 12

AC= 8 AF= 12

AD= 4 AG= 13

2. Find the shortest path to each vertex from Point A.



STEP #1: AB; 2, AD; 5, AC; 4

STEP #2: ABF; 7, ABE; 5, ~~ABG; 16~~

STEP #3: ~~ACD; 7~~

STEP #4: ~~ADE; 8~~, ADG; 8, ADJ; 10

STEP #5: ~~ABEF; 9~~, ABEH; 14

STEP #6: ~~ABFH; 17~~

STEP #7: ~~ADGJ; 12~~

STEP #8: ~~ADJH; 18~~, ADJI; 16

STEP #9: ABEHI; 19

Shortest Distance From:

AB= 2 AF= 7

AC= 4 AG= 8

AD= 5 AH= 14

AE= 5 AI = 16

STEP#1
~~AD; 7~~
AC; 4
AB; 3

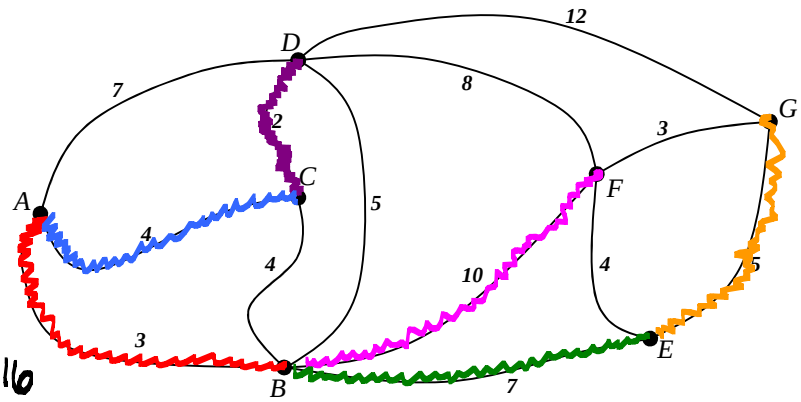
STEP#2
~~ABC; 7~~
~~ABD; 8~~
ABF; 13
ABE; 10

STEP#3
ACD; 6

STEP#4
~~ACDG; 18~~
~~ACDF; 14~~

STEP#5
~~ABEF; 14~~
ABEG; 15

STEP#6
ABFG; 16



Shortest Distance From:

AB= 3

AC= 4

AD= 6

AE= 10

AF= 13

AG= 15

STEP#1
~~AD; 10~~
AB; 9
AF; 2

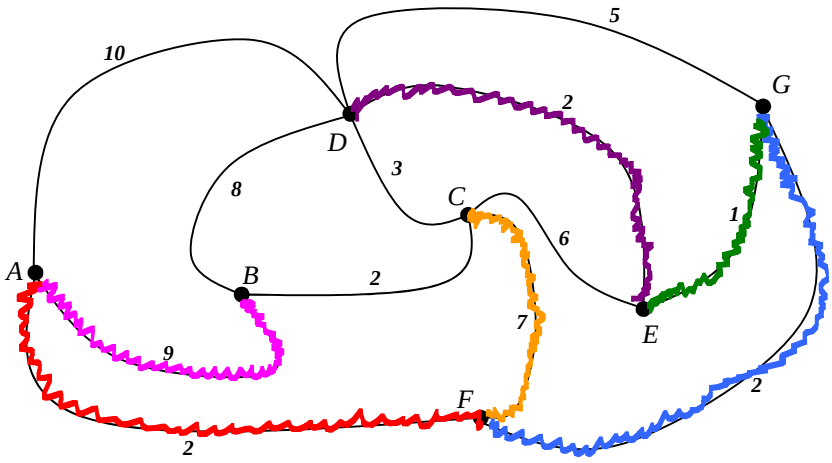
STEP#2
AFC; 9
AFG; 4

STEP#3
~~AFGD; 9~~
AFGE; 5

STEP#4
AFGED; 7
~~AFGEC; 11~~

STEP#5
~~AFGEDB; 15~~
~~AFGEDC; 10~~

STEP#6
~~ABC; 11~~



Shortest Distance From:

AB= 9

AC= 9

AD= 7

AE= 5

AF= 2

AG= 4