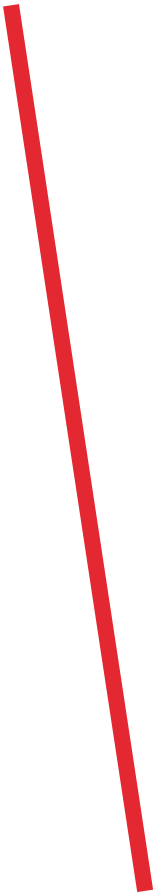


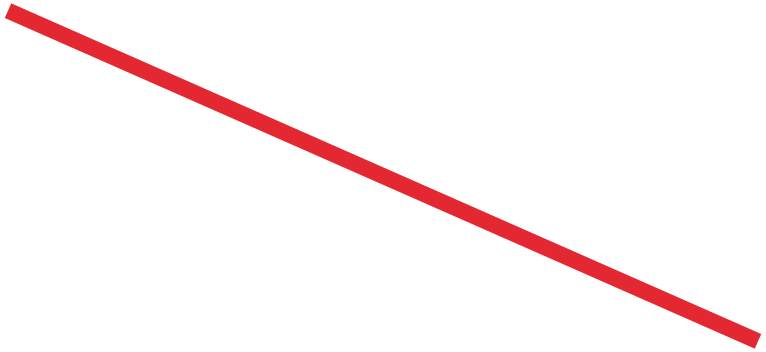


KRUSKAL-RUTISATON

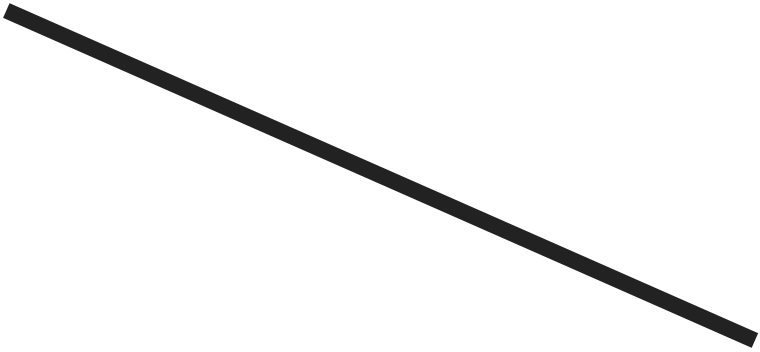


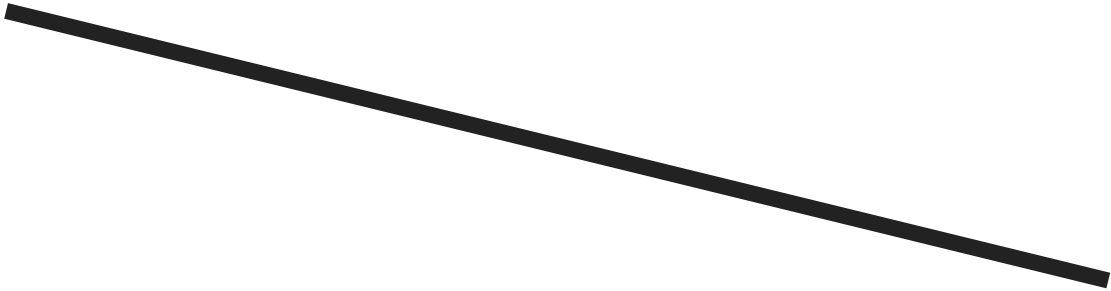




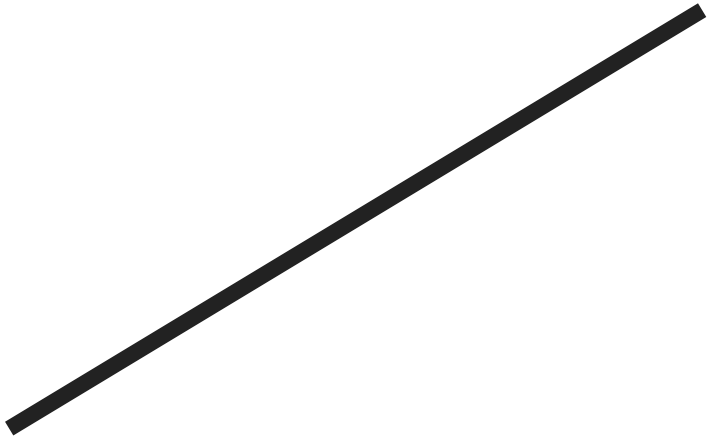


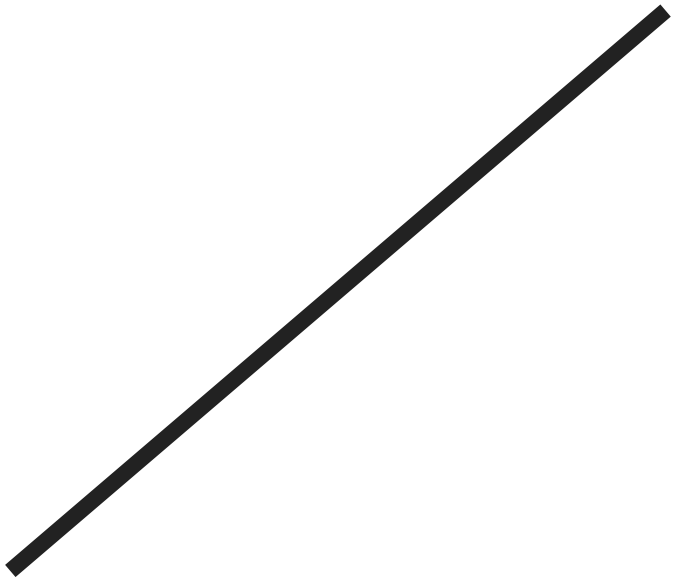






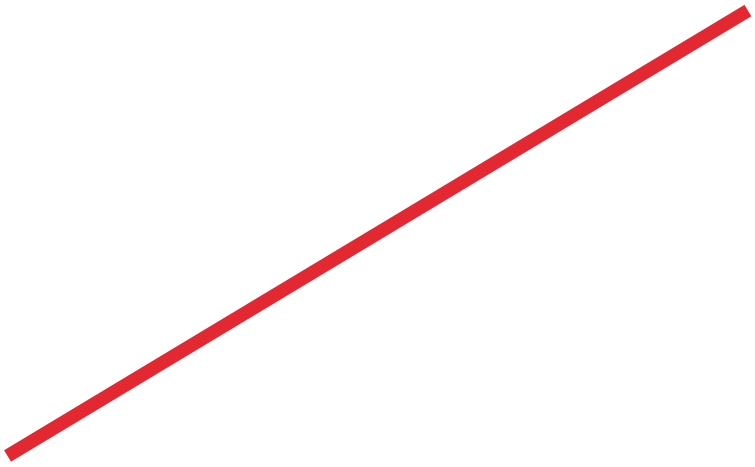


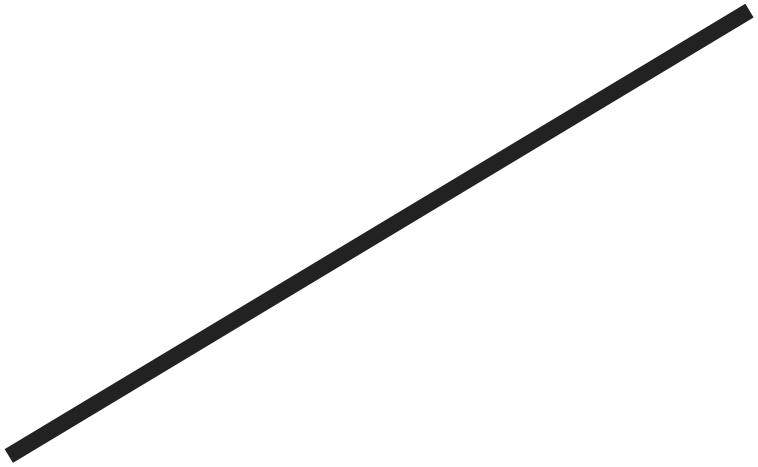














A

A large blue circle with a white letter 'C' in the center.

C

A large blue circle with a white capital letter 'F' centered inside it.

F

A large blue circle with a white capital letter 'B' in the center.

B

11



4

5

7

5

9

9

12

8



20

# Before

(A, C, 4)

(A, B, 5)

(D, E, 5)

(B, C, 7)

(C, F, 8)

(C, D, 9)

(F, E, 9)

(A, D, 11)

(C, E, 12)

(B, F, 20)



D

A large blue circle with a white capital letter 'E' centered inside it.

E

{A}{B}{C}{D}{E}{F}

$\{A, C\} \{B\} \{D\} \{E\} \{F\}$

{A,C,B}{D}{E}{F}

$\{A, C, B\}$   $\{D, E\}$   $\{F\}$



{A,C,B,F}{D,E}

{A,C,B,E,D,E}

(A.C.4)

**A**fter

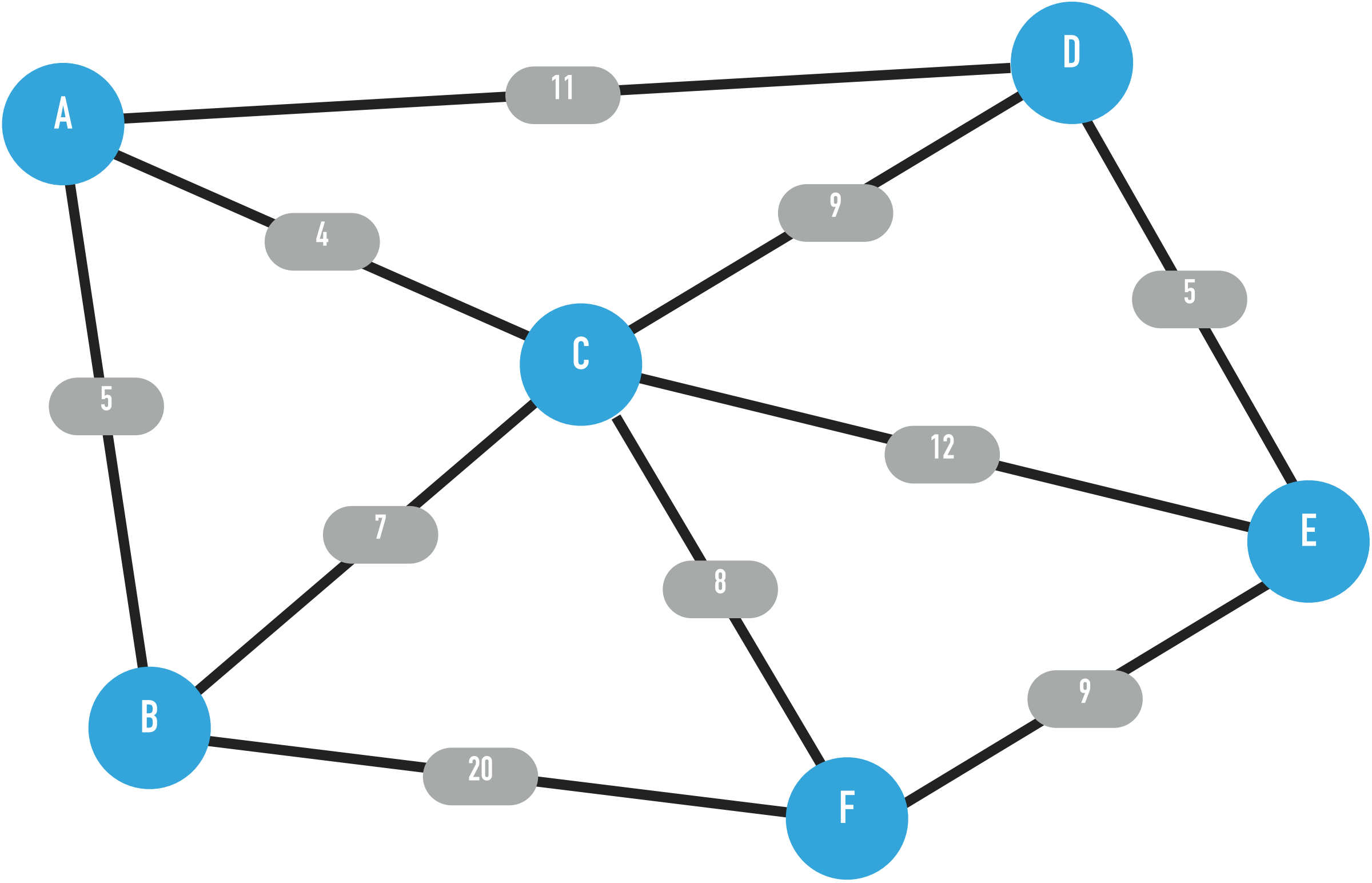
(A.B.5)

(D.E.S)

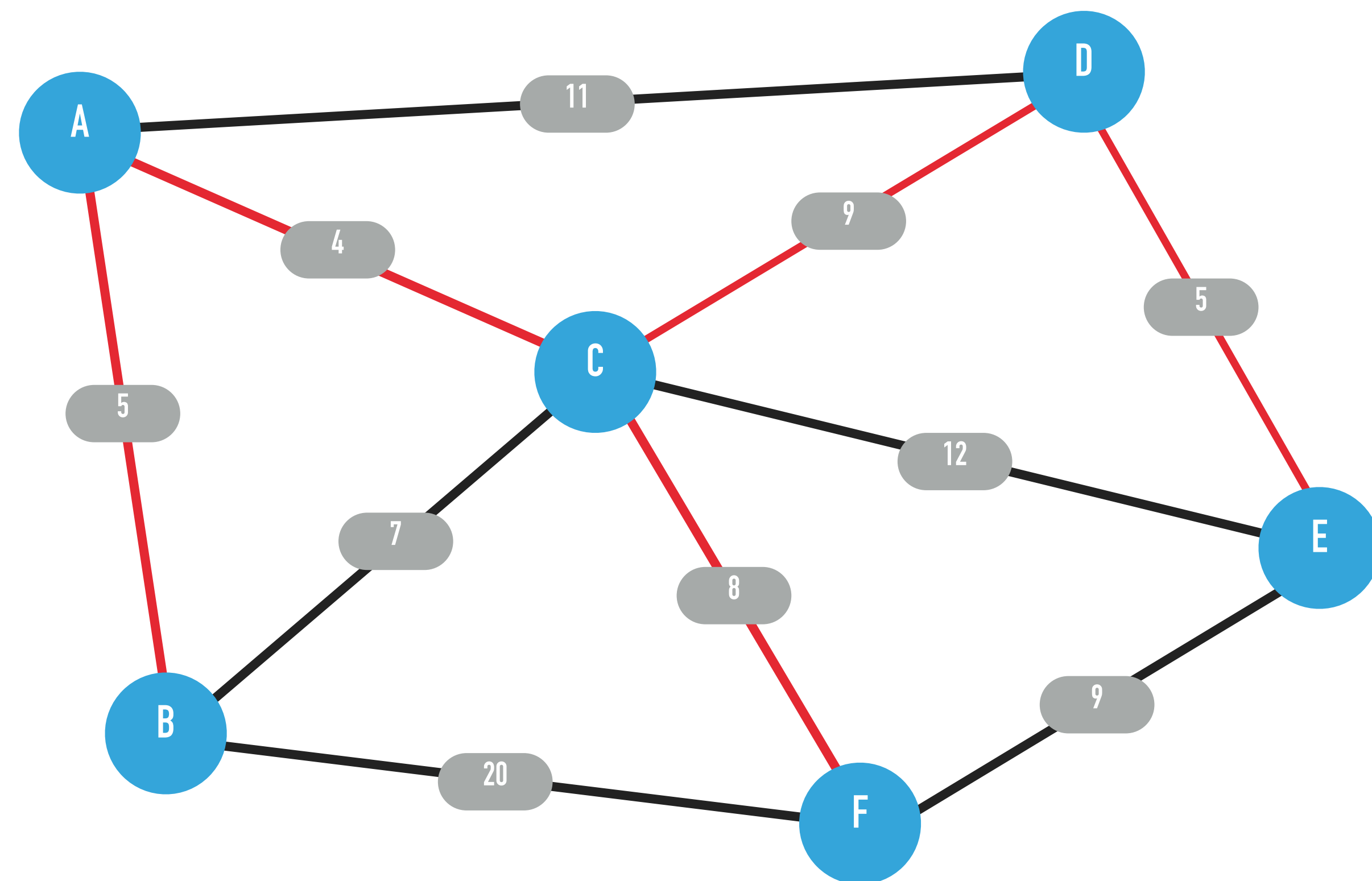
(C.F.8)







# KRUSKAL - UTILISATION



Before

- (A, C, 4)
- (A, B, 5)
- (D, E, 5)
- (B, C, 7)
- (C, F, 8)
- (C, D, 9)
- (F, E, 9)
- (A, D, 11)
- (C, E, 12)
- (B, F, 20)

After

- (A, C, 4)
- (A, B, 5)
- (D, E, 5)
- (C, F, 8)
- (C, D, 9)

{A, C, B, F, D, E}

## KRUSKAL - PSEUDO CODE

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**KRUSKAL(G):**

// Liste vide qui contiendra le résultat

**A =  $\emptyset$**

**Pour chaque sommets v du graphe G:**

// Mettre chaque sommet dans une liste à part

**MAKE-SET(v)**

**Récupérer et trier dans l'ordre croissant par poids**

**Pour chaque arête (u, v):**

// Vérifie si les 2 sommets sont dans la même ensemble

**if FIND-SET(u)  $\neq$  FIND-SET(v):**

// On ajoute l'arête au résultat

**A = A  $\cup$  {(u, v)}**

// On fusionne les 2 ensembles

**UNION(u, v)**

**Retourne A**