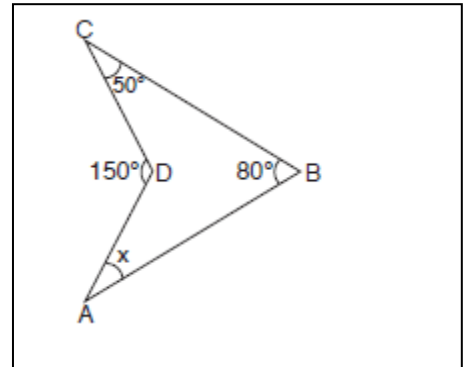


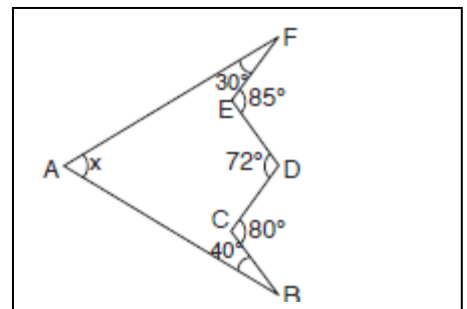
**Exercice 1**

On a :  $x + 80^{\circ} + 50^{\circ} = 150^{\circ}$   
 $x + 130^{\circ} = 150^{\circ}$   
 $x = 150^{\circ} - 130^{\circ}$   
 Donc :  $x = 20^{\circ}$



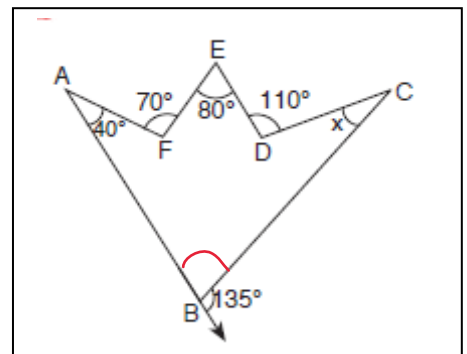
**Exercice 2**

On a :  $x + 40^{\circ} + 72^{\circ} + 30^{\circ} = 80^{\circ} + 85^{\circ}$   
 $x + 142^{\circ} = 165^{\circ}$   
 $x = 165^{\circ} - 142^{\circ}$   
 Donc :  $x = 23^{\circ}$



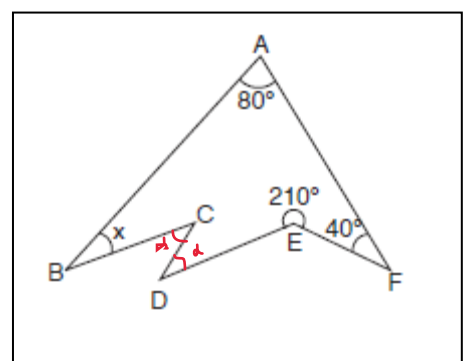
**Exercice 3**

On a :  $x + 80^{\circ} + 40^{\circ} + (180^{\circ} - 135^{\circ}) = 70^{\circ} + 110^{\circ}$   
 $x + 120^{\circ} + 180^{\circ} - 135^{\circ} = 180^{\circ}$   
 $x = 135^{\circ} - 120^{\circ}$   
 Donc :  $x = 15^{\circ}$



**Exercice 4**

$[BC] // [DE]$  Donc  $\widehat{BCD} = \widehat{CDE} = \alpha$   
 On a :  $x + \alpha + 40^{\circ} + 80^{\circ} = \alpha + (360^{\circ} - 210^{\circ})$   
 $x + 120^{\circ} = 150^{\circ}$   
 $x = 150^{\circ} - 120^{\circ}$   
 Donc :  $x = 30^{\circ}$



### Exercice 5

On a :

$$2a + 80^\circ + (360^\circ - 70^\circ) + 60^\circ + 2b = 720^\circ$$

$$2(a+b) + 430^\circ = 720^\circ$$

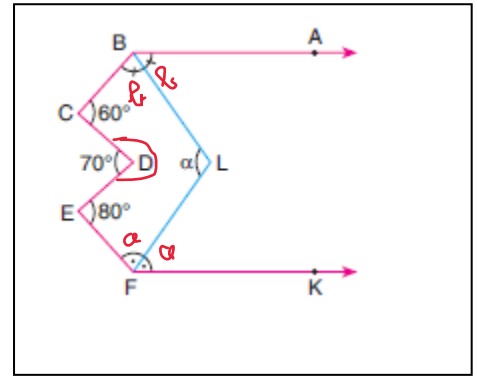
$$2(a+b) = 720^\circ - 430^\circ$$

$$2(a+b) = 290^\circ$$

$$a+b = \frac{290^\circ}{2} = 145^\circ$$

$(AB) \parallel (FK)$  donc  $\alpha = a+b$

D'où :  $\alpha = 145^\circ$



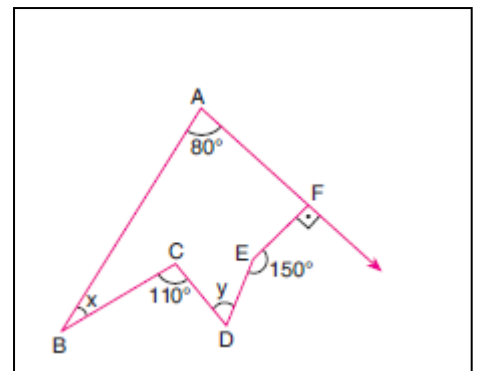
### Exercice 6

On a :  $x + y + 90^\circ + 80^\circ = 110^\circ + 150^\circ$

$$x + y + 170^\circ = 260^\circ$$

$$x + y = 260^\circ - 170^\circ$$

$$x + y = 90^\circ$$



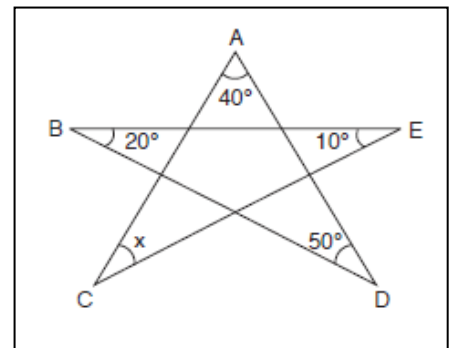
### Exercice 7

On a :  $x + 20^\circ + 40^\circ + 10^\circ + 50^\circ = 180^\circ$

$$x + 120^\circ = 180^\circ$$

$$x = 180^\circ - 120^\circ$$

Donc :  $x = 60^\circ$



### Exercice 8

On a :  $\hat{AFC} = 20^\circ + 40^\circ + 35^\circ$

$$\hat{AFC} = 95^\circ$$

On a :  $\hat{CFD} + \hat{AFC} = 180^\circ$

$$\hat{CFD} = 180^\circ - \hat{AFC}$$

$$\hat{CFD} = 180^\circ - 95^\circ = 85^\circ$$

$\hat{CFD}$  est un angle extérieur du triangle  $DEF$ .

Donc :  $\hat{CFD} = \hat{FED} + \hat{EDF}$

$$\hat{CFD} = \alpha + \beta$$

D'où :  $\alpha + \beta = 85^\circ$

