

<> Question:

-> calculer la longueur de la médiatrice MN (\*)

(\*) voir l'image de la page d'accueil

<> Réponse:

-> calcul de BN:

$$\rightarrow (BN)^2 = (BC)^2 + (CN)^2$$

$$\rightarrow (BN)^2 = 24^2 + 7^2$$

$$\rightarrow (BN)^2 = 576 + 49 = 625$$

$$\rightarrow BN = \text{SquareRoot}(625) = 25$$

-> ABN = triangle isocèle => BN = AN = 25

$$\rightarrow \text{comme } AC = AN + 7 \Rightarrow AC = 25 + 7 = 32$$

$$\rightarrow (AB)^2 = (AC)^2 + (BC)^2$$

$$\rightarrow (AB)^2 = 32^2 + 24^2$$

$$\rightarrow (AB)^2 = 1024 + 576 = 1600$$

$$\rightarrow AB = \text{SquareRoot}(1600) = 40$$

-> si AB = 40 => AM = BM = 20

$$\rightarrow (BN)^2 = (BM)^2 + (MN)^2$$

$$\rightarrow BM = 20 \text{ et } BN = 25 \Rightarrow 25^2 = 20^2 + (MN)^2$$

$$\rightarrow 625 = 400 + (MN)^2$$

$$\rightarrow 625 - 400 = (MN)^2$$

$$\rightarrow 225 = (MN)^2$$

$$\rightarrow MN = \text{SquareRoot}(225) = 15$$

-> réponse finale: 
$$\begin{array}{c} +-----+ \\ | \quad MN = 15 \quad | \\ +-----+ \end{array}$$