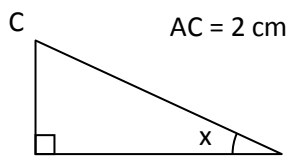


**CORRIGE – M. QUET**

**EXERCICE 1**

AC = 2 cm et BC = 6 cm.

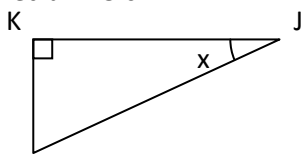


$$\sin x = \frac{\text{côté opposé à } x}{\text{hypoténuse}} = \frac{AC}{BC} = \frac{2}{6}$$

$$\rightarrow x = \sin^{-1}\left(\frac{2}{6}\right) \approx 19,5^\circ$$

**EXERCICE 2**

x = 25° et IJ = 13 cm.



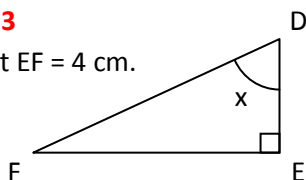
$$\sin x = \frac{\text{côté opposé à } x}{\text{hypoténuse}} = \frac{IK}{IJ}$$

$$\sin 25 = \frac{IK}{13}$$

$$IK = 13 \times \sin 25 \approx 5,5 \text{ cm}$$

**EXERCICE 3**

x = 62° et EF = 4 cm.



$$\tan x = \frac{\text{côté opposé à } x}{\text{côté adjacent à } x} = \frac{EF}{DE}$$

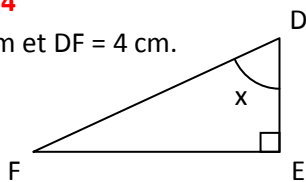
$$\tan 62 = \frac{4}{DE}$$

$$DE \times \tan 62 = 4$$

$$DE = \frac{4}{\tan 62} \approx 2,1 \text{ cm}$$

**EXERCICE 4**

DE = 2 cm et DF = 4 cm.

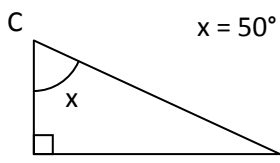


$$\cos x = \frac{\text{côté adjacent à } x}{\text{hypoténuse}} = \frac{DE}{DF} = \frac{2}{4}$$

$$x = \cos^{-1}\left(\frac{2}{4}\right) = 60^\circ$$

**EXERCICE 5**

x = 50° et AC = 6 cm.



$$\cos x = \frac{\text{côté adjacent à } x}{\text{hypoténuse}} = \frac{AC}{BC}$$

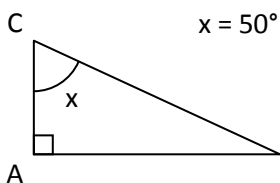
$$\cos 50 = \frac{6}{BC}$$

$$BC \times \cos 50 = 6$$

$$BC = \frac{6}{\cos 50} \approx 9,3 \text{ cm}$$

**EXERCICE 6**

x = 50° et BC = 6 cm.



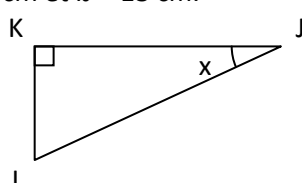
$$\cos x = \frac{\text{côté adjacent à } x}{\text{hypoténuse}} = \frac{AC}{BC}$$

$$\cos 50 = \frac{AC}{6}$$

$$AC = 6 \times \cos 50 \approx 3,9 \text{ cm}$$

**EXERCICE 7**

IK = 5 cm et IJ = 13 cm.

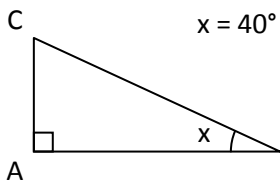


$$\sin x = \frac{\text{côté opposé à } x}{\text{hypoténuse}} = \frac{IK}{IJ} = \frac{5}{13}$$

$$x = \sin^{-1}\left(\frac{5}{13}\right) \approx 22,6^\circ$$

**EXERCICE 8**

x = 40° et AC = 6 cm.



$$\sin x = \frac{\text{côté opposé à } x}{\text{hypoténuse}} = \frac{AC}{BC} = \frac{6}{6}$$

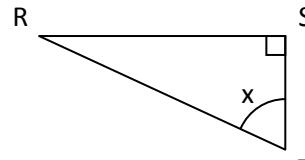
$$\sin 40 = \frac{6}{BC}$$

$$BC \times \sin 40 = 6$$

$$BC = \frac{6}{\sin 40} \approx 9,3 \text{ cm}$$

**EXERCICE 9**

ST = 7 cm et RS = 19 cm.

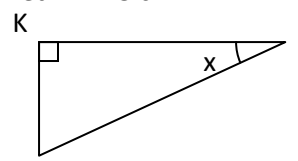


$$\tan x = \frac{\text{côté opposé à } x}{\text{côté adjacent à } x} = \frac{RS}{ST} = \frac{19}{7}$$

$$x = \tan^{-1}\left(\frac{19}{7}\right) \approx 69,8^\circ$$

**EXERCICE 10**

x = 25° et IK = 13 cm.



$$\cos x = \frac{\text{côté adjacent à } x}{\text{hypoténuse}} = \frac{IK}{IJ}$$

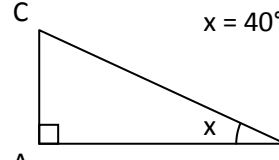
$$\cos 25 = \frac{13}{IJ}$$

$$IJ \times \cos 25 = 13$$

$$IJ = \frac{13}{\cos 25} \approx 14,3 \text{ cm}$$

**EXERCICE 11**

x = 40° et BC = 6 cm.



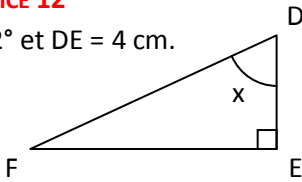
$$\sin x = \frac{\text{côté opposé à } x}{\text{hypoténuse}} = \frac{AC}{BC}$$

$$\sin 40 = \frac{AC}{6}$$

$$AC = 6 \times \sin 40 \approx 3,9 \text{ cm}$$

**EXERCICE 12**

$x = 62^\circ$  et  $DE = 4$  cm.



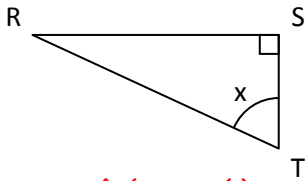
$$\tan x = \frac{\text{côté opposé à } x}{\text{côté adjacent à } x} = \frac{EF}{DE}$$

$$\tan 62 = \frac{EF}{4}$$

$$EF = 4 \times \tan 62 \approx 7,5 \text{ cm}$$

**EXERCICE 13**

$x = 57^\circ$  et  $ST = 19$  cm.



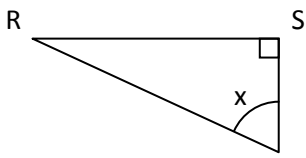
$$\tan x = \frac{\text{côté opposé à } x}{\text{côté adjacent à } x} = \frac{RS}{ST}$$

$$\tan 57 = \frac{RS}{19}$$

$$RS = 19 \times \tan 57 \approx 29,3 \text{ cm}$$

**EXERCICE 14**

$x = 57^\circ$  et  $RS = 19$  cm.



$$\tan x = \frac{\text{côté opposé à } x}{\text{côté adjacent à } x} = \frac{RS}{ST}$$

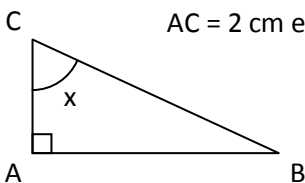
$$\tan 57 = \frac{19}{ST}$$

$$ST \times \tan 57 = 19$$

$$ST = \frac{19}{\tan 57} \approx 12,3 \text{ cm}$$

**EXERCICE 15**

$AC = 2$  cm et  $BC = 6$  cm.



$$\cos x = \frac{\text{côté adjacent à } x}{\text{hypoténuse}} = \frac{AC}{BC} = \frac{2}{6}$$

$$x = \cos^{-1}\left(\frac{2}{6}\right) \approx 70,5^\circ$$