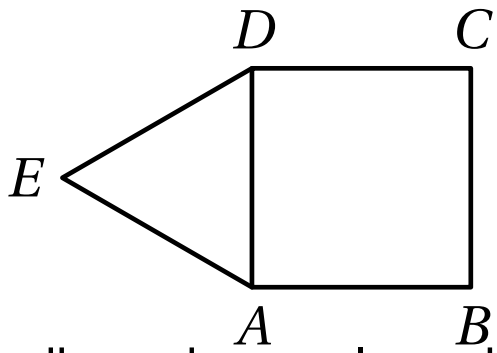
Auto-évaluation ex 4 page 217

Sésamath

Maths 1S

énoncé

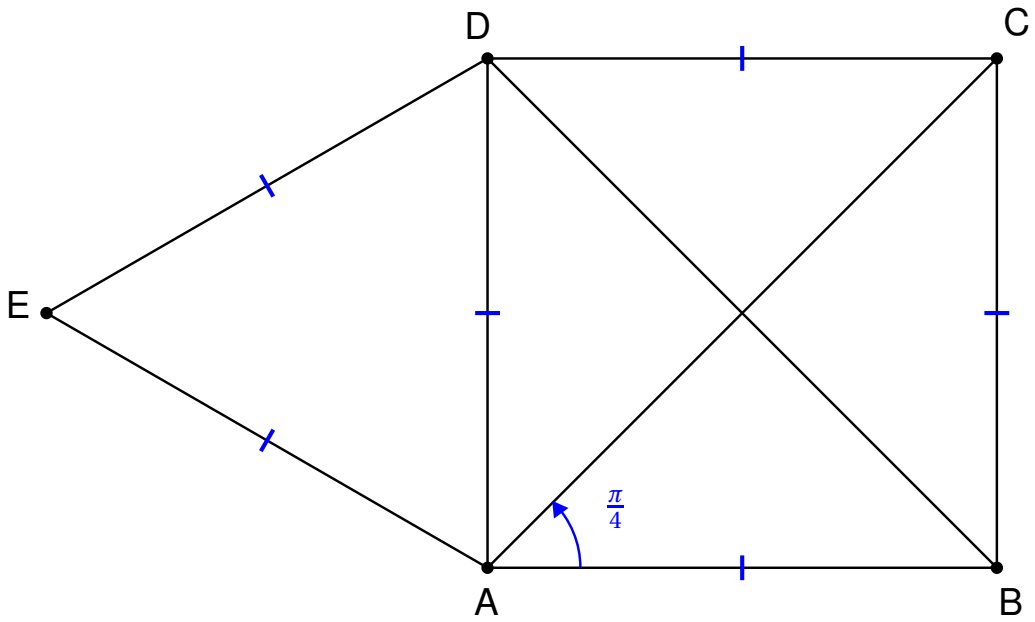
On considère la figure ci-dessous où $ABCD$ est un carré et ADE est équilatéral.



1. Donner une mesure en radians des angles orientés suivants.
   a) $\left(\overrightarrow{AB}\,;\,\overrightarrow{AC}\right)$
   b) $\left(\overrightarrow{DB}\,;\,\overrightarrow{CB}\right)$
   c) $\left(\overrightarrow{AE}\,;\,\overrightarrow{AD}\right)$
   d) $\left(\overrightarrow{CD}\,;\,\overrightarrow{DE}\right)$
2. Donner $\cos\left(\overrightarrow{AB}\,;\,\overrightarrow{AC}\right)$ et $\sin\left(\overrightarrow{AE}\,;\,\overrightarrow{AD}\right)$.

correction

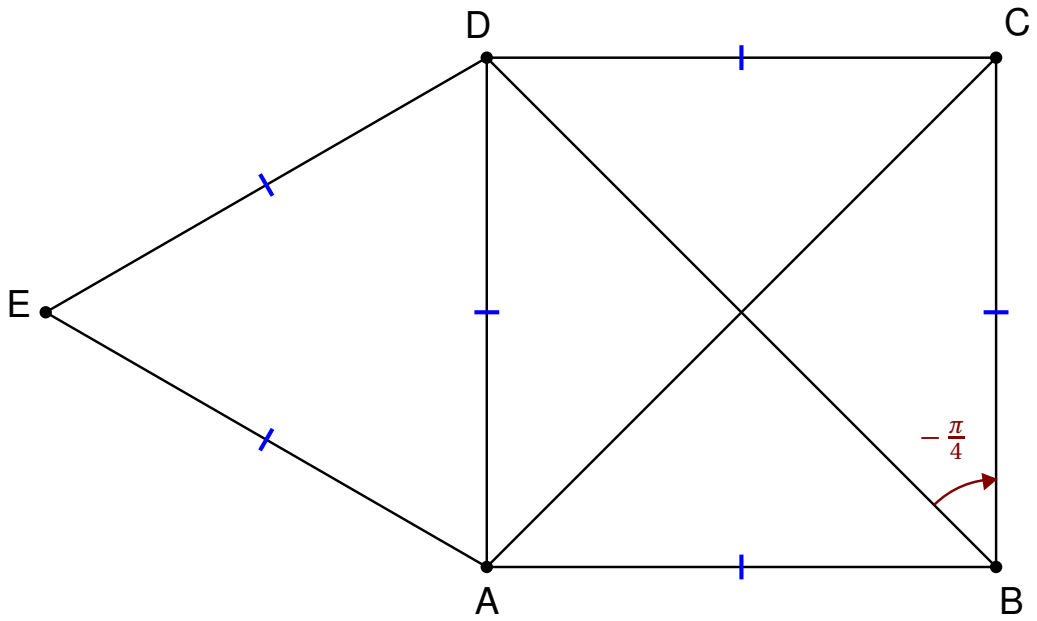
1 a)



$$\left(\overrightarrow{AB}\,;\overrightarrow{AC}\right) = \frac{\pi}{4}\,[2\pi]$$

correction

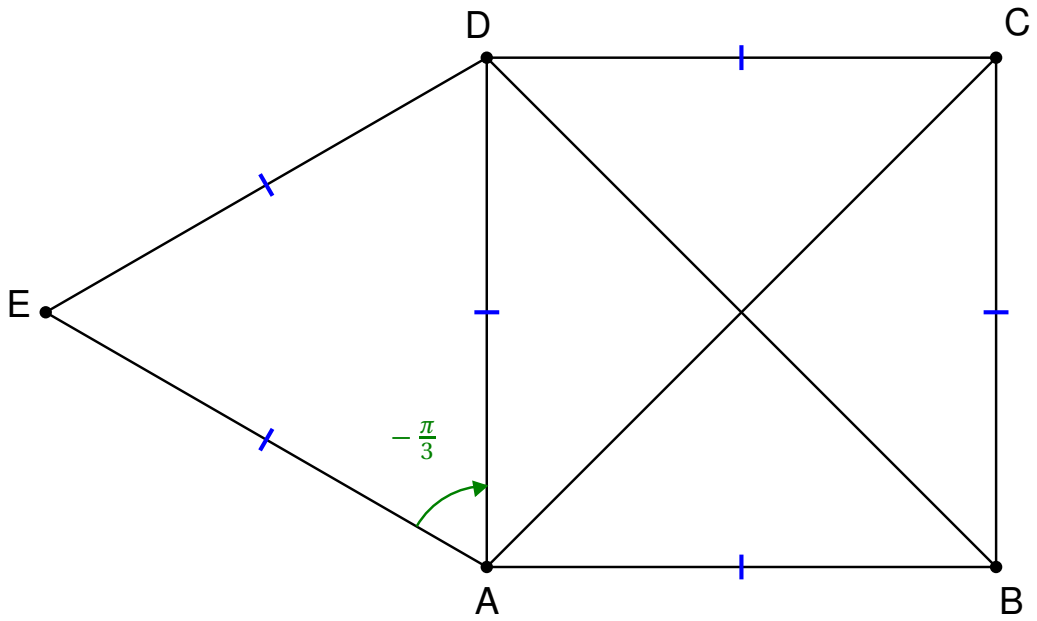
1 b)



$$\left(\overrightarrow{DB}\,;\overrightarrow{CB}\right) = \left(\overrightarrow{BD}\,;\overrightarrow{BC}\right) = -\frac{\pi}{4}\,[2\pi]$$

correction

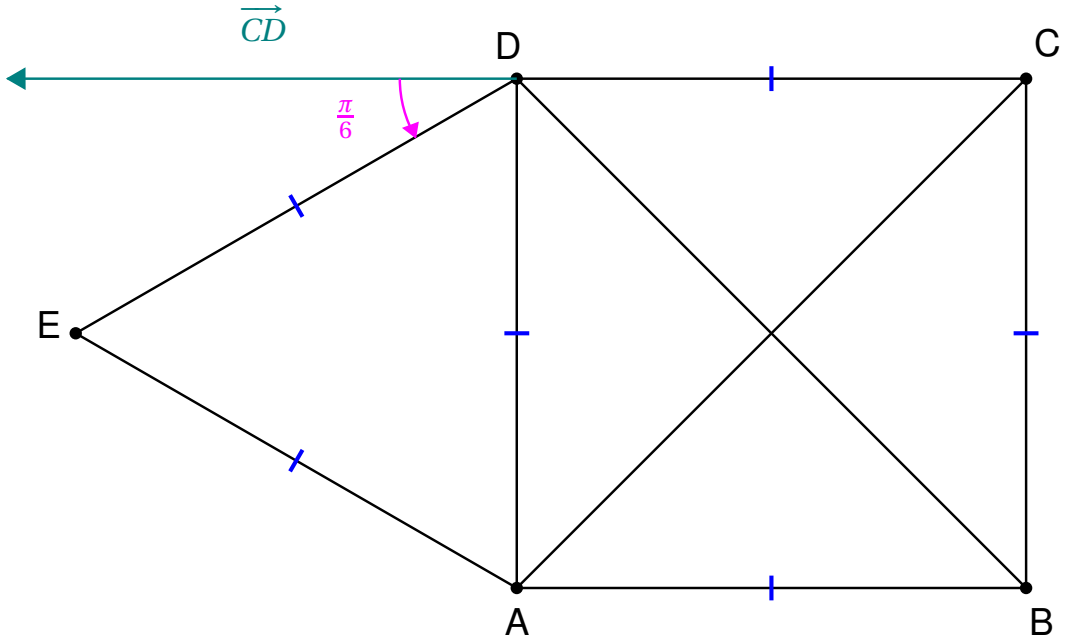
1 c)



$$\left(\overrightarrow{AE};\overrightarrow{AD}\right) = -\frac{\pi}{3}\ [2\pi]$$

correction

1 d)



$\left(\overrightarrow{CD}; \overrightarrow{DE}\right) = \frac{\pi}{6}\ [2\pi]$

correction

2 $\cos\left(\overrightarrow{AB}\,;\overrightarrow{AC}\right) = \cos\left(\frac{\pi}{4}\right) = \frac{\sqrt{2}}{2}$

$\sin\left(\overrightarrow{AE}\,;\overrightarrow{AD}\right) = \sin\left(-\frac{\pi}{3}\right) = -\sin\left(\frac{\pi}{3}\right) = -\frac{\sqrt{3}}{2}$