

LS 10 S 165

Nr. 11 $\cos(\alpha) = -1$

d) $\arccos(\cos(\alpha)) = \arccos(-1)$
 $\alpha = \underline{\underline{180^\circ}}$

e) $\sin(\alpha) = 1$
 $\arcsin(\sin(\alpha)) = \arcsin(1)$
 $\alpha = \underline{\underline{90^\circ}}$

f) $\cos(\alpha) = 0 \Rightarrow \underline{\underline{\alpha_1 = 90^\circ}} \vee \underline{\underline{\alpha_2 = 270^\circ}}$

g) $\sin(\alpha) = \frac{1}{2}\sqrt{2}$

$\underline{\underline{\alpha_1 = 45^\circ}}$

$\underline{\underline{\alpha_2 = 180^\circ - 45^\circ = 135^\circ}}$

α	$\sin(\alpha)$	$\cos(\alpha)$
0°	$\frac{1}{2}\sqrt{0}$	$\frac{1}{2}\sqrt{4}$
30°	$\frac{1}{2}\sqrt{1}$	$\frac{1}{2}\sqrt{3}$
45°	$\frac{1}{2}\sqrt{2}$	$\frac{1}{2}\sqrt{2}$
60°	$\frac{1}{2}\sqrt{3}$	$\frac{1}{2}\sqrt{1}$
90°	$\frac{1}{2}\sqrt{4}$	$\frac{1}{2}\sqrt{0}$

h) $\cos(\alpha) = \frac{1}{2}\sqrt{3}$

$\underline{\underline{\alpha_1 = 30^\circ}}$

$\underline{\underline{\alpha_2 = 360^\circ - 30^\circ = 330^\circ}}$

Nr. 12 $\sin(\alpha) = -\sin(180^\circ + \alpha) = \cos(270^\circ + \alpha)$
 $= \cos(90^\circ - \alpha) = -\cos(90^\circ + \alpha)$

A - B - C - D - H

$\cos(\alpha) = \sin(90^\circ + \alpha) = -\sin(270^\circ + \alpha)$

E - F - G