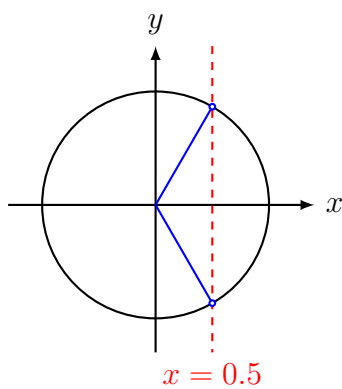
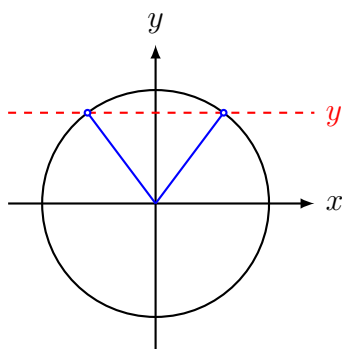


**Aufgabe 1**



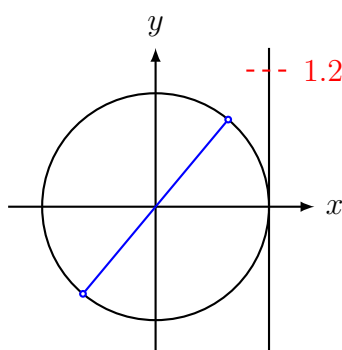
$$\begin{aligned} \cos(\alpha) &= 0.5 \\ \alpha &= \arccos(0.5) = 60^\circ \\ \alpha_1 &= 60^\circ \\ \alpha_2 &= 360^\circ - \alpha = 300^\circ \end{aligned}$$

**Aufgabe 2**



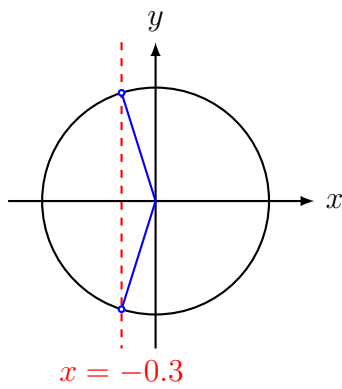
$$\begin{aligned} \sin(\alpha) &= 0.8 \\ \alpha &= \arcsin(0.8) = 53.13^\circ \\ \alpha_1 &= 53.13^\circ \\ \alpha_2 &= 180^\circ - \alpha = 126.87^\circ \end{aligned}$$

**Aufgabe 3**



$$\begin{aligned} \tan(\alpha) &= 1.2 \\ \alpha &= \arctan(1.2) = 50.19^\circ \\ \alpha_1 &= 50.19^\circ \\ \alpha_2 &= \alpha + 180^\circ = 230.19^\circ \end{aligned}$$

### Aufgabe 4



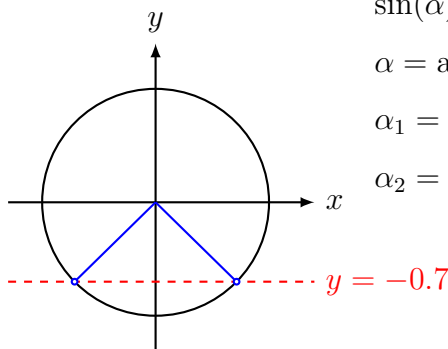
$$\cos(\alpha) = -0.3$$

$$\alpha = \arccos(-0.3) = 107.46^\circ$$

$$\alpha_1 = 107.46^\circ$$

$$\alpha_2 = 360^\circ - \alpha = 252.54^\circ$$

### Aufgabe 5



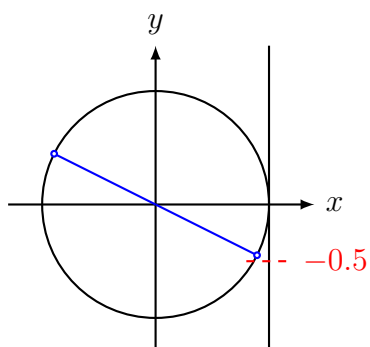
$$\sin(\alpha) = -0.7$$

$$\alpha = \arcsin(-0.7) = -44.43^\circ$$

$$\alpha_1 = \alpha + 360^\circ = 315.57^\circ$$

$$\alpha_2 = 180^\circ - \alpha = 224.43^\circ$$

### Aufgabe 6



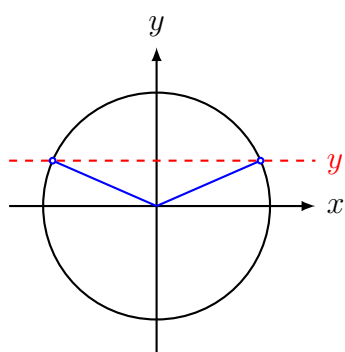
$$\tan(\alpha) = -0.5$$

$$\alpha = \arctan(-0.5) = -26.57^\circ$$

$$\alpha_1 = \alpha + 360^\circ = 333.43^\circ$$

$$\alpha_2 = \alpha + 180^\circ = 153.43^\circ$$

### Aufgabe 7



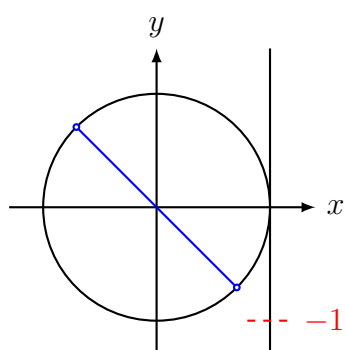
$$\sin(\alpha) = 0.4$$

$$\alpha = \arcsin(0.4) = 23.58^\circ$$

$$\alpha_1 = 23.58^\circ$$

$$\alpha_2 = 180^\circ - \alpha = 156.42^\circ$$

### Aufgabe 8



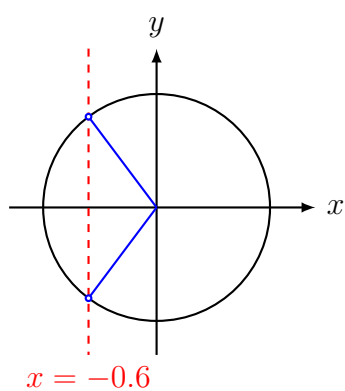
$$\tan(\alpha) = -1$$

$$\alpha = \arctan(-1) = -45^\circ$$

$$\alpha_1 = \alpha + 360^\circ = 315^\circ$$

$$\alpha_2 = \alpha + 180^\circ = 135^\circ$$

### Aufgabe 9



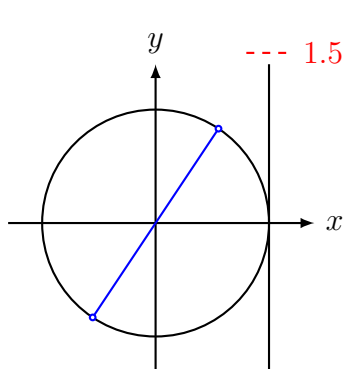
$$\cos(\alpha) = -0.6$$

$$\alpha = \arccos(-0.6) = 126.87^\circ$$

$$\alpha_1 = 126.87^\circ$$

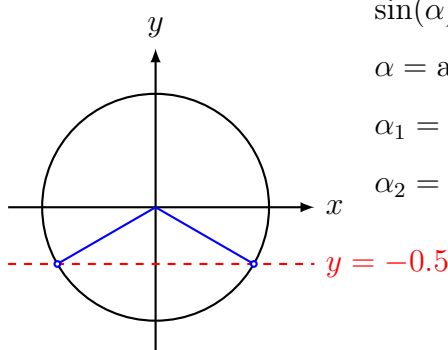
$$\alpha_2 = 360^\circ - \alpha = 233.13^\circ$$

### Aufgabe 10



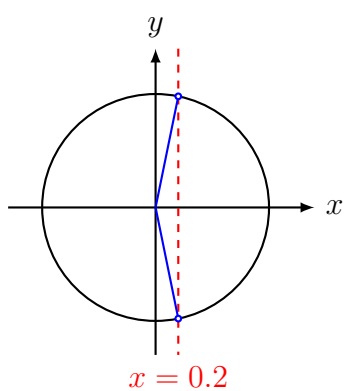
$$\begin{aligned}\tan(\alpha) &= 1.5 \\ \alpha &= \arctan(1.5) = 56.31^\circ \\ \alpha_1 &= 56.31^\circ \\ \alpha_2 &= \alpha + 180^\circ = 236.31^\circ\end{aligned}$$

### Aufgabe 11



$$\begin{aligned}\sin(\alpha) &= -0.5 \\ \alpha &= \arcsin(-0.5) = -30^\circ \\ \alpha_1 &= \alpha + 360^\circ = 330^\circ \\ \alpha_2 &= 180^\circ - \alpha = 210^\circ\end{aligned}$$

### Aufgabe 12



$$\begin{aligned}\cos(\alpha) &= 0.2 \\ \alpha &= \arccos(0.2) = 78.46^\circ \\ \alpha_1 &= 78.46^\circ \\ \alpha_2 &= 360^\circ - \alpha = 281.54^\circ\end{aligned}$$