

5. Find the exact value of $\cos(\alpha + \beta)$ if.

$$\sin \alpha = \frac{5}{13}, \quad -\frac{3\pi}{2} < \alpha < -\pi \quad \text{and}$$

$$\tan \beta = -\sqrt{3}, \quad \frac{\pi}{2} < \beta < \pi$$

6. Find all possible solutions (real numbers!) for each of the following:

a) $4 \sin^2 x - 1 = 0$

b) $\tan 3\theta - 1 = 0$

