1. (3 points) Find the equation for the line which passes through the point (9, 4), and is perpendicular to the line $6x + 2y = 5$.

2. (2 points) State a geometric property common to all lines in the family $y = m(x - 3) - 1$, and sketch 4 of the lines.

3. (2 points) Compute the value of $\sin \left( \frac{2\pi}{3} \right)$.
4. (1 points) If $\sin(\theta) = \frac{3}{5}$ and $0 < \theta < \frac{\pi}{2}$, find $\cos(\pi - \theta)$.

5. (2 points) Compute the value of $\cos(\alpha + \beta)$ using the figure below along with the appropriate trigonometric identity. You do not need to simplify your final answer.