Directions: Show your work, organize, and write clearly.

1. Solve each equation.
   
a) \(25 \cos x = 5\) where \(0 \leq x < 2\pi\)
   
b) \(3 \sin x = 1\) where \(0 \leq x < 2\pi\)
   
c) \(4 \tan x = 4\) where \(0 \leq x < 2\pi\)
   
d) \(3 \tan^2 x = 27\) where \(0 \leq x < 2\pi\)
   
e) \(7 \csc x = 49\) where \(0 \leq x < 2\pi\)

2. Evaluate \(\cos(2B)\) and \(\sin(2B)\) from the given information.
   
a) \(\cos(B) = \frac{4}{5}\) and \(\frac{3\pi}{2} < B < 2\pi\)
   
b) \(\tan(B) = \frac{8}{15}\) and \(\pi < B < \frac{3\pi}{2}\)
   
c) \(\csc(B) = \frac{25}{24}\) and \(\frac{\pi}{2} < B < \pi\)
   
d) \(\tan(B) = 2\sqrt{2}\) and \(0 < B < \frac{\pi}{2}\)
   
e) \(\cot(B) = 2\) and \(0 < B < \frac{\pi}{2}\)