Problem 8

Consider the amplifier shown below.

1. Find . Assume that the coupling capacitor is a short circuit for the ac signal and an open circuit for the dc. (*Hint:* Apply the superposition principle for the ac and dc sources.)
2. If the FET has and , sketch its drain characteristics to scale for 1, 2, 3, and 4V.
3. Draw the load line for the amplifier on the characteristics.
4. Find the values of , and .

