Problem 1: Sue is very picky about her consumption of milk and cookies. She always wants two cookies \( (x_C) \) per one glass of milk \( (x_M) \) that she gets. Draw a picture of Sue’s indifference curve through the bundle \( (x_C, x_M) = (8,8) \).

Problem 2: It is the end of the summer and Mr. Fruitier is as happy as can be. He loves both peaches \( (x_p) \) and melons \( (x_M) \). His preferences for the two goods can be captured by the following Cobb-Douglas utility function: \( U = x_p^a \cdot x_M^b \). Determine if the following statements true or false (circle the right answer):

\[
\begin{align*}
(4,9) &\preceq (6,6) & \text{True or False} \\
(6,6) &\preceq (4,9) & \text{True or False} \\
(4,9) &> (6,6) & \text{True or False} \\
(4,9) &< (6,6) & \text{True or False} \\
(5,9) &\preceq (6,6) & \text{True or False} \\
(6,6) &\preceq (5,9) & \text{True or False} 
\end{align*}
\]
Problem 3: Charlie has no health concerns and loves french fries. He wants to consume as many fries as possible. At Charlie’s favorite hang-out fries come in two sizes: small and large. The small size ($x_S$) has 1 oz of fries, and the large size ($x_L$) has 4 oz of fries. Draw his indifference curve thru the bundle ($x_S, x_L$) = (8,2)