Question 1: What is gradient descent and how does it work?
Question 2: What is the benefit of a convex function?
Question 3: What is the condition number for a strongly convex problem?

Answer 1: Gradient descent is algorithmically lowering the value of the objective of the algorithm at a rate specified by the learning rate until the gradient reaches a minimum that is close to zero. This is used in order to improve the loss function associated with it until it reaches the desirable minimum.

Answer 2: A convex function has no local minimums, but only the global minimum for a gradient descent to converge to. This ensures that the gradient descent correctly converges onto the desired minimum, rather than an undesirable local minimum.

Answer 3: The condition number is the factor of how difficult a strongly convex problem would be to solve. A larger condition number dictates that more iterations of gradient descent would be required to solve the problem, or in other words, converge on the desired minimum value.