1. In the worse case, how many guesses would our guessing game take to get the right answer if we had no hints at all? Explain.

Without any hints, the worst-case scenario is when the last number guessed is the correct one. Since the range of numbers is from 1 to 10 (inclusive), there are 10 possible numbers. Therefore, in the worst case, it would take 10 guesses to definitely find the right number, as each guess eliminates one possibility, and the last remaining number must be the correct one.

2. In the worst case, how many guesses does it take to get the right number if we get a hint of "higher or lower" when guessing numbers 1-10 and guess intelligently (always picking in the middle of the remaining set of numbers)?

When playing the guessing game with numbers ranging from 1 to 10 and receiving hints after each guess, the most efficient strategy is to start guessing from the middle of the range. Initially, you guess the middle number, which in this case could be 5. Based on the hint you receive, you can eliminate half of the possible numbers. If the hint is "higher," you know the number is between 6 and 10. If the hint is "lower," then it's between 1 and 4.

In the next guess, you choose the middle number of the new range. This process of halving the range continues with each guess. Therefore, in the worst-case scenario, the number of guesses you would need to find the right number is the smallest number 'n' for which 2^n is equal to or greater than 10, since the range is from 1 to 10.

Mathematically, you can calculate $\lceil log\ 2(10) \rceil$. The value of $\lceil log\ 2(10) \rceil$ is approximately 3.32, and when you round it up (since you can't make a fraction of a guess), it becomes 4. So, in the worst-case scenario, it takes 4 guesses to get the right number if you use a strategy of dividing the range of possible numbers in half with each guess, based on the "higher or lower" hints.