

### Assignment 3

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#### **Each point that you are teaching, how will it be taught, how will it be assessed?**

##### Binary Conversion and Addition

Our game will basically be a control center to defend against enemy ships. It is the user's job to intercept the locations of the ship which would come in binary. In order to issue controls for the missile defense system, users would need to enter them into the only input the system takes (decimal). At the beginning of each level, there will be a set amount of ships and a timer will be started as soon as the intercept button is clicked. The game will continue with either a successful progression to the next level, or a game loss condition and repeat of the level.

Players will learn to convert these numbers much faster as they progress in difficulty. At higher levels, the grid can be expanded to take on larger numbers as well although the base states of the game will remain from number 1-10 until the user gets used to the difficulty.

The user will also have a key that will be able to help get familiar. As users become more comfortable with the conversions, we will incorporate binary addition as well. Users will gain a better mastery of these conversion with each passing level.