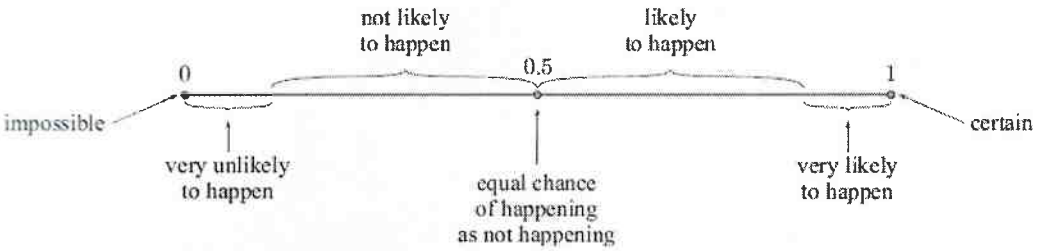
Probability Day 1 Classwork Name: _____ Date: _____

An **impossible** event which has 0% chance of happening is assigned a probability of 0.

A **certain** event which has 100% chance of happening is assigned a probability of 1.

All other events can be assigned a probability between 0 and 1.

The number line below shows how we could interpret different probabilities:



Problem 1.

A ticket is *randomly selected* from a basket containing 3 green, 4 yellow, and 5 blue tickets. Determine the probability of getting:

a a green ticket

b a green or yellow ticket

c an orange ticket

d a green, yellow, or blue ticket.

Problem 2.

An ordinary 6-sided die is rolled once. Determine the chance of:

a getting a 6 b not getting a 6 c getting a 1 or 2 d not getting a 1 or 2

Problem 3. Were there any complementary events in the Problem 2? Which ones?

Two events are **complementary** if exactly one of the events *must* occur.

If A is an event, then A' is the complementary event of A, or 'not A'.

$$\mathbf{P}(A) + \mathbf{P}(A') = 1$$