



The **Boat, Pond,** and **Anchor Problem**

It's a warm, sunny, blue sky, summer's day. A father and son are in a rowboat on a quiet pond, looking forward to a relaxing day of fishing. Dad picks a spot where he thinks the fish will be biting then carefully lifts the heavy anchor from the bottom of the boat and slowly lowers it over the side, trying not to scare the fish, until it rests on the sandy bottom.

The son, having just studied Archimedes' principle in middle school, asks, "I wonder if the water level in the pond is now the same, lower, or higher than it was before you lowered the anchor over the side."