## Next-Time Question



Compared with an empty ship, will a ship loaded with a cargo of Styrofoam float lower in water or higher in water?



CONCEPTUAL Physics

## Nonterly Exiliarsin



Compared with an empty ship, will a ship loaded with a cargo of Styrofoam float lower in water or higher in water?

Answer: lower in water

The ship loaded with Styrofoam will float lower in water. A ship will float highest when its weight is least—that is when it is empty. Loading any cargo will increase its weight and make it float lower in the water. Whether the cargo is a ton of Styrofoam or a ton of iron, the water displacement will be the same.

CONCEPTUAL Physics