

Problem-Solving Application:

Use Rational Numbers

Use the questions to help you solve.

1. At sea level, the weight of the air pressing down on you is 1 atmosphere or 14.7 pounds per inch². At a depth of 33 feet below the ocean's surface, the weight of the water pressing down on you is 2 atmospheres. Water pressure increases by 1 atmosphere for every additional 33 feet of depth. In January of 1960, a research vessel called *Trieste* reached a depth of 35,800 ft in the Pacific Ocean. What is the water pressure at that depth?

UNDERSTAND

What is the question?

What do you know about water pressure?

PLAN

What steps do you need to follow to solve the problem?

In what order should you follow those steps?

SOLVE

What is the answer?

LOOK BACK

Does your answer seem reasonable?

2. What is the water pressure at a depth of 13,200 ft?
