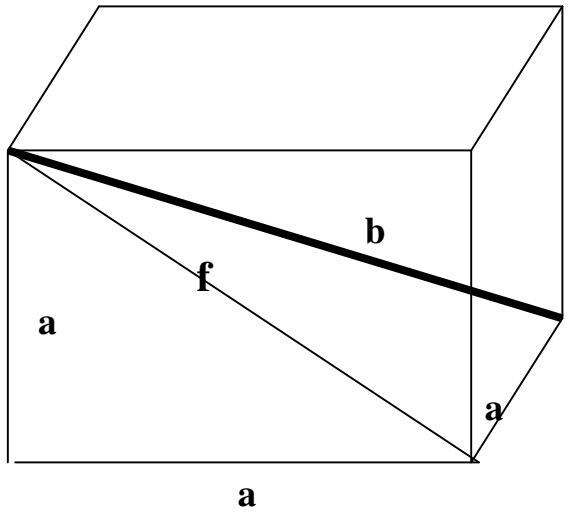
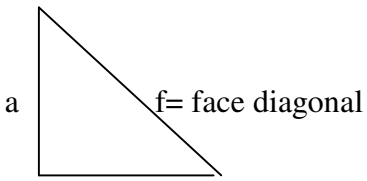
Pre-Lab: Crystal Structures Name_____
Last First

Consider the cube given below where the edge length is designated by the letter, a.

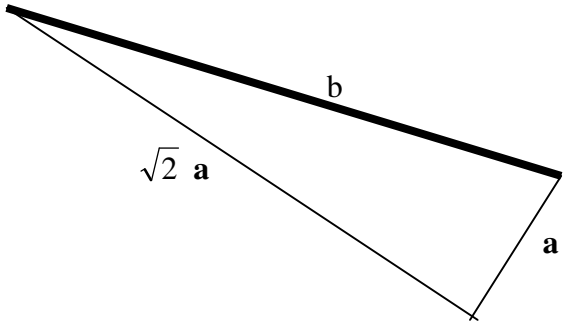


1. **f** is called a face-diagonal of a cube.
What is the length of the hypotenuse ,f, of the right angle triangle whose sides are each designated by the letter, a?
Setup:



Answer_____

2. **b** is called a body-diagonal of a cube.
What is the length of the hypotenuse, b, of a right angle triangle whose one side is designated by the letter, **a**, and the other side is equal to $\sqrt{2}$ **a**?
Setup:



Answer_____