

Solutions

2.1 $\sqrt{3^2+4^2}=5$.

2.2 $\sqrt{5^2+12^2}=13$.

2.3 Opposite 12 divided by base projection 5.

3.1 False. Edges 3,4,12 give diagonal $\sqrt{9+16+144}=13$. Using only 3 and 4 gives the face diagonal 5, not the space diagonal.

Local review guidance: show the chosen method; give the checked result; explain the condition or failed shortcut. This is authored classroom guidance.