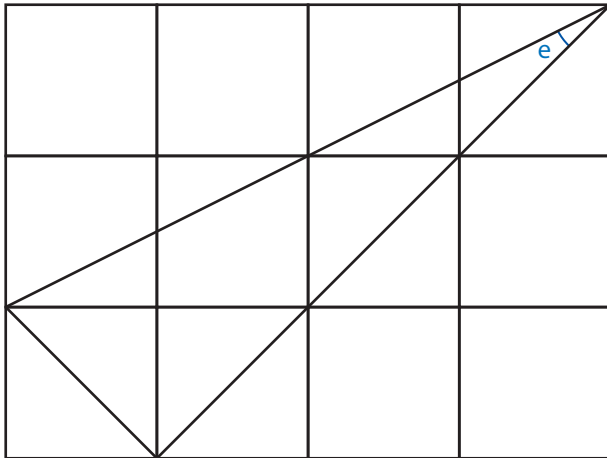b + e = c,
so a + b = c if a = e

angle a is in a 1 by 3 right angled triangle;
so is e;
ie the triangles are similar,
so corresponding angles are equal,
so a = e.

[or tan a = 1/3 = tan e]