

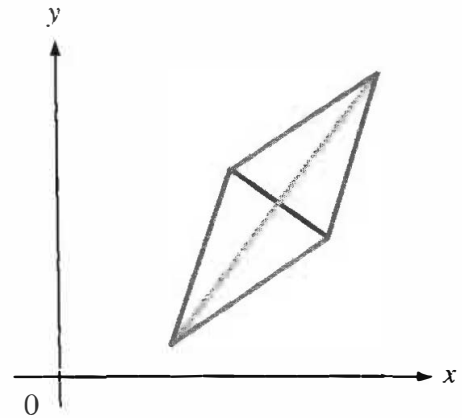
Diamond Slopes Problem

Gregory Akulov

If $d_{1,2}$ are the slopes of rhombus' diagonals (see Figure), and $s_{1,2}$ are the slopes of its sides, then

$$d_{1,2} = \frac{a}{b \pm \sqrt{a^2 + b^2}}$$

where $a = s_1 + s_2$, $b = 1 - s_1 s_2$. Prove it.



Figure

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