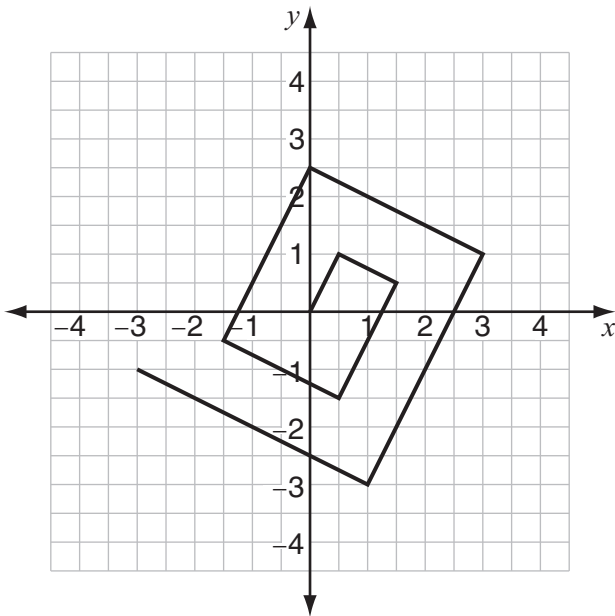**20** Starting at the origin, Nadia drew eight line segments on this coordinate grid.
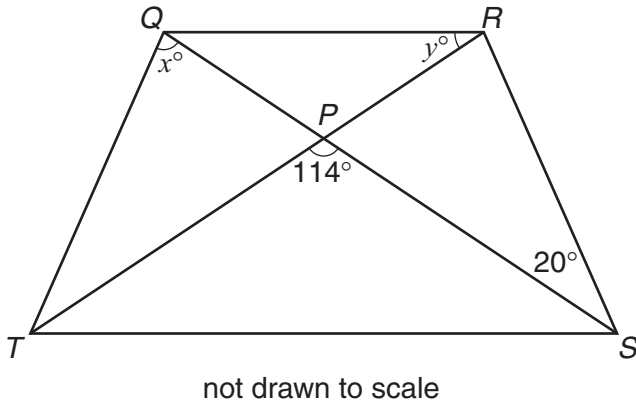

Nadia continues her pattern. What is the slope of the 25th line segment she will draw? Show your work or explain how you know.

21 The manager of a music store ordered 20 new violins. She ordered some of two different models—the standard and the deluxe. Each standard violin costs $500, and each deluxe violin costs $800.

If the manager spent exactly $11,500 on these violins, how many deluxe violins did she order? Show your work or explain how you know.

22 Look at this diagram.

not drawn to scale

- Quadrilateral *QRST* has diagonals $\overline{QS}$ and $\overline{RT}$ that intersect at point *P*.

- Triangle *QPT* is congruent to triangle *RPS* ($\triangle QPT \cong \triangle RPS$).

a. What is the value of *x*? Show your work or explain how you know.

b. What is the value of *y*? Show your work or explain how you know.