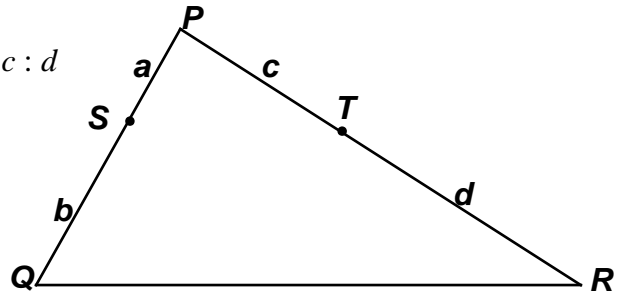


ROUND 7 TEAM QUESTIONS - continued

E) Given: $PQ = 6$, $QR = 10$, $PS : SQ = a : b$, $PT : TR = c : d$

$$\frac{a}{b} = \frac{c}{d}, \quad \frac{c}{a+b} = \frac{a}{c+d}$$

Compute the maximum perimeter of $\triangle PQR$.



F) Compute the probability that between 4PM and 5PM the angle between the minute and hour hands of a clock will form an obtuse angle.