## Answer: 39

## PQRS is a parallelogram. Solve for the variable requested.

Given: $m \angle Q P S=(4 x+6)^{\circ}, m \angle P Q R=(3 x+6)^{\circ}$
Find: $m \angle Q P S$.


## Answer: 69

## PQRS is a parallelogram. Solve for the variable requested.

Given: $P S=5 y-3, Q R=2 y+6$
Find: The length of $\overline{Q R}$.


## Answer: 102

## PQRS is a parallelogram. Solve for the variable requested.

Given: $Q T=5 x+3, T S=3 x+6, P T=5 x-2$
Find: The length of $\overline{P T}$.


## Answer: 10

## PQRS is a parallelogram. Solve for the variable requested.

Given: $\mathrm{PQ}=x^{2}-4, S R=x+2$
Find: The length of $\overline{S R}$.


## Answer: 4

PQRS is a parallelogram. Solve for the variable requested.

Given: $m \angle Q P S=(10 x-9)^{\circ}, m \angle Q R S=(9 x+3)^{\circ}$
Find: $m \angle R Q P$.


## Answer: 12

## PQRS is a parallelogram. Solve for the variable requested.

Given: $m \angle P T Q=(3 x+15)^{\circ}, m \angle Q P T=(8 x-4)^{\circ}$, $m \angle T R S=(6 x+12)^{\circ}$

Find: $m \angle R T S$.


## Answer: 5.5

## PQRS is a parallelogram. Solve for the variable requested.

Given: $\overline{S T}=2 x-7, \overline{T Q}=x+2$
Find: $\overline{S Q}$.


## Answer: 22

## PQRS is a parallelogram. Solve for the variable requested.

Given: $\overline{S P}=3 x+y, \overline{P Q}=5 x+3 y, \overline{S R}=7, \overline{Q R}=5$
Find: The value of both $x$ and $y$. (You will only find the answer for $y$ on the next problem, though.)


## Answer: 5

## PQRS is a parallelogram. Solve for the variable requested.

Given: $\overline{Q T}=y^{2}+6 y, \overline{T S}=8 y+8, \overline{P T}=x^{2}, \overline{T R}=16$
Find: The value of both $x$ and $y$. (You will only find the answer for $y$ on the next problem, though.)


## Answer: -1

## PQRS is a parallelogram. Solve for the variable requested.

Given: $\overline{P T}=3 x+1, \overline{P R}=4 x+8$
Find: The length of $\overline{T R}$.


