

## Answer on Question #79958 – Math – Geometry

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### Question

Suppose Q is the midpoint of PR (underscores above the first PR). If  $PQ=3x+14$  and

$QR=7x-10$ , find PR.

### Solution

As Q is the midpoint of PQ then

$$PQ=QR$$

$$3x+14=7x-10$$

$$14+10=7x-3x$$

$$24=4x$$

$$x=6$$

$$PR=PQ+QR$$

$$PR=3x+14+7x-10=10x+4$$

$$\text{As } x=6 \text{ then } PR=10*6+4=64$$

**Answer:** 64.