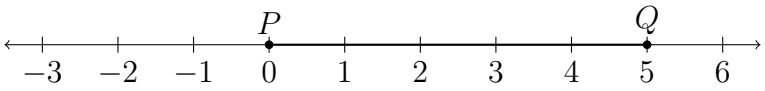
1.2 Homework: Number line and algebra practice

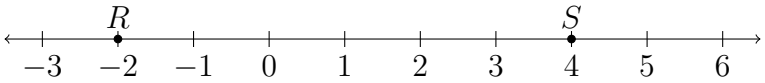
1. Given $\overline{PQ}$ as shown on the number line.



What is the length of the segment $\overline{PQ}$?

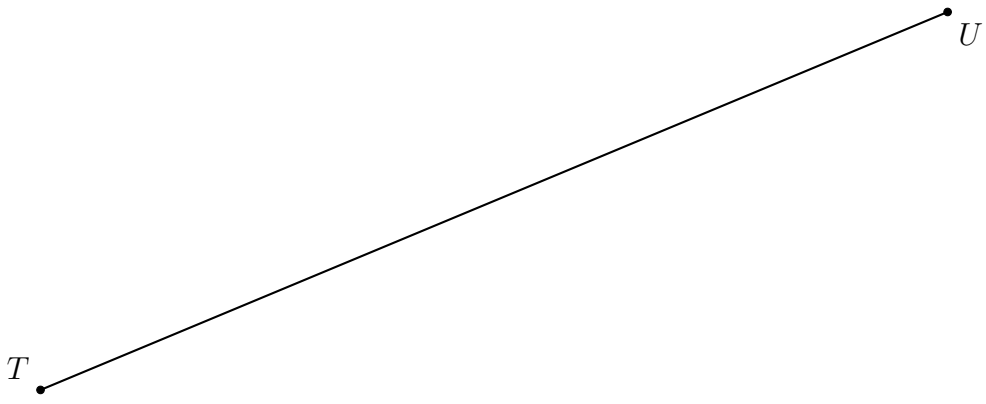
$PQ =$

2. Two points $R(-2)$, $S(4)$ are shown on the number line.



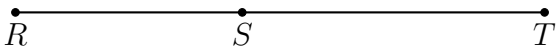
What is the distance between R and S? Show your work as an equation.

3. Measure the segment $\overline{TU}$. Write its length in centimeters (expressed as an equation).



4. Points that fall on the same straight line are _____.

5. Given $\overline{RST}$, $RS = 3\frac{2}{3}$, and $ST = 4\frac{2}{3}$. Find RT (expressed as a fraction, not a decimal).



6. As shown, three collinear points with $LM = 2x + 3$, $MN = 7$, $LN = 22$. Find x.

   (a) Write down an equation to represent the situation.

   (b) Solve for x.

   (c) Check your answer.

7. Two textbooks are stacked up. One is a heavy calculus book, two inches thick. The other is one inch thick, *Topics in Topography*. How tall is the stack of both books?

8. Dr. Huson is 5 foot 7 inches tall. If he stepped up onto a 6 inch box how tall would he be then?