Unit 1 Quiz: Introduction to Geometry

What do you know? What can you do? Thursday, Friday October 15, 16

Demonstrate mastery of the following standards:

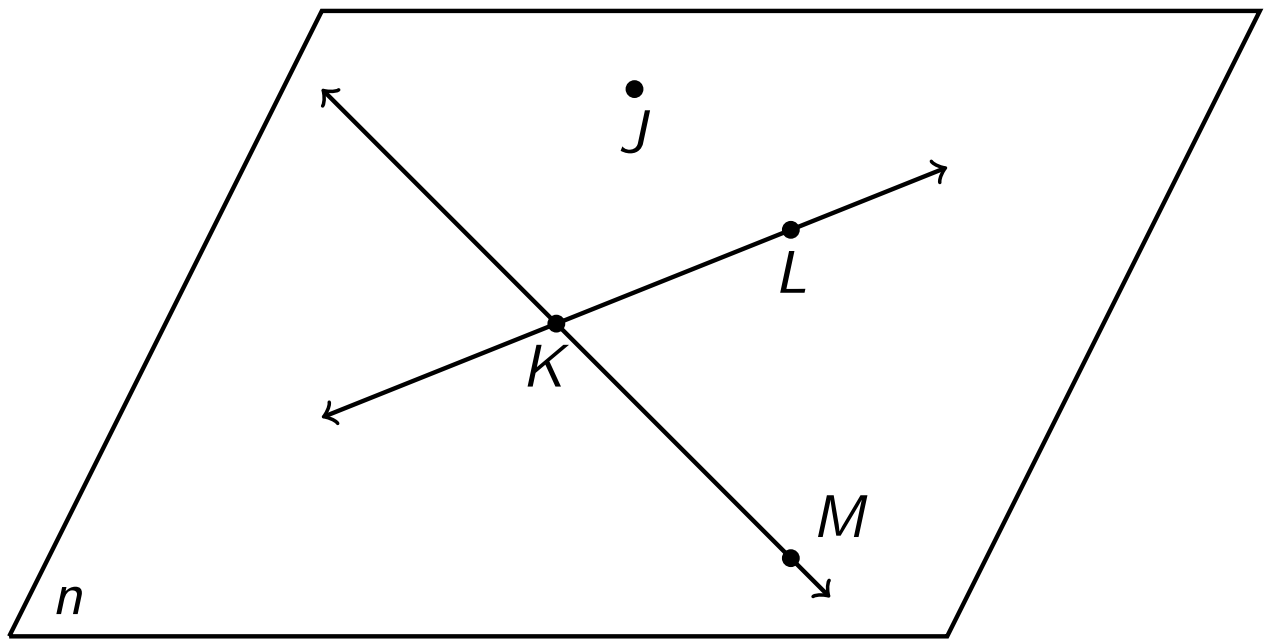
1. Applying vocabulary and notation, diagrams
2. Applying the Segment Addition Postulate, length
3. Quantitative operations on the number line

1) Diagrams and notation

Identify the objects shown in the diagram. Type your answer on the blank line and be sure to use small or capital letters correctly.

1. The intersection of the two lines: _____

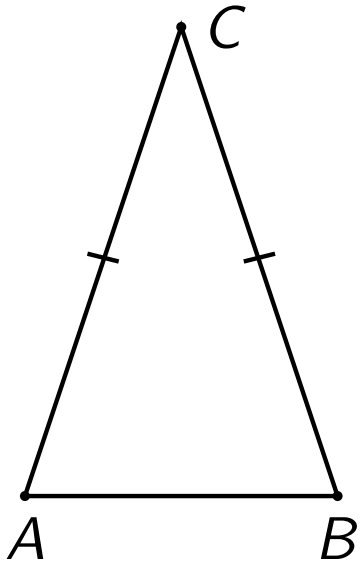
2. The name of the plane: _____



2) Diagrams and notation

What is shown in the diagram? Mark all that apply.

1. A rectangle
2. An equilateral triangle
3. An isosceles triangle
4. A triangle that is neither isosceles nor equilateral



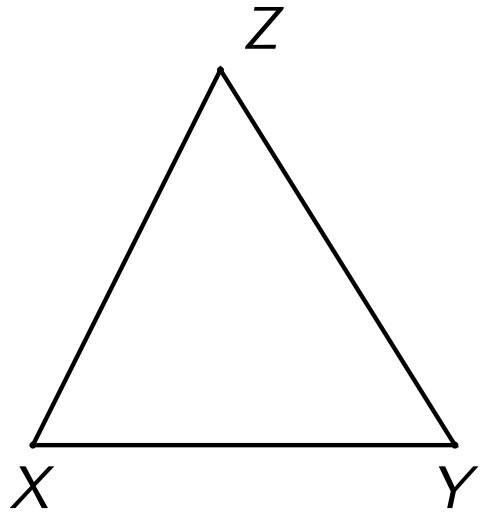
3) Diagrams and notation

Given the points D and E, draw ray $\overrightarrow{DE}$.

4) Diagrams and notation

Given isosceles $\triangle XYZ$ with $\overline{XY} \cong \overline{XZ}$.

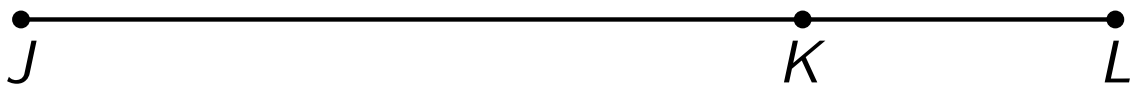
On the diagram mark the congruent line segments with tick marks.



5) Applying the segment addition postulate

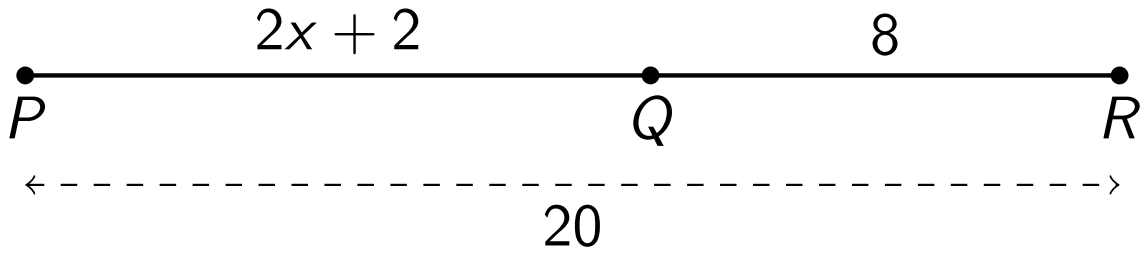
Given $\overline{JKL}$, $JK = 8.4$, and $KL = 2.7$. Find JL.

Show your work by marking the diagram and writing an equation.



6) Applying the segment addition postulate

Given $\overline{PQR}$, $PQ = 2x + 2$, $QR = 8$, $PR = 20$. Find x.



1. Write down an equation to represent the situation.

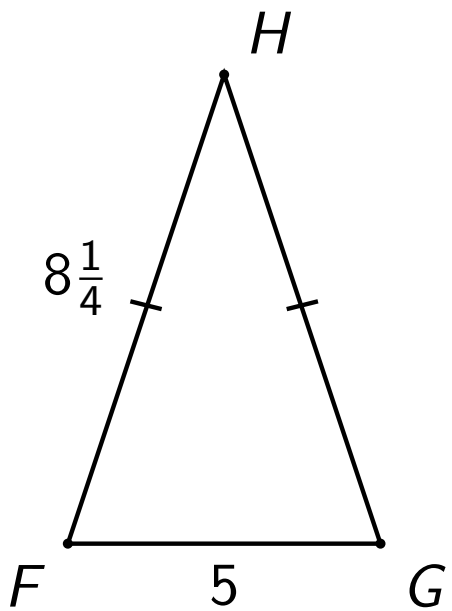
2. Solve for x.

3. Check your answer.

7) Applying the segment addition postulate

Find the perimeter of the isosceles $\triangle FGH$, given $\overline{FH} \cong \overline{GH}$, $FG = 5$, and $FH = 8\frac{1}{4}$

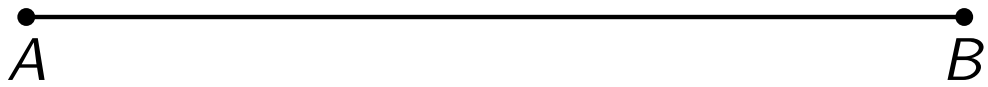
Show your work with an equation for full credit.



8) Applying the segment addition postulate

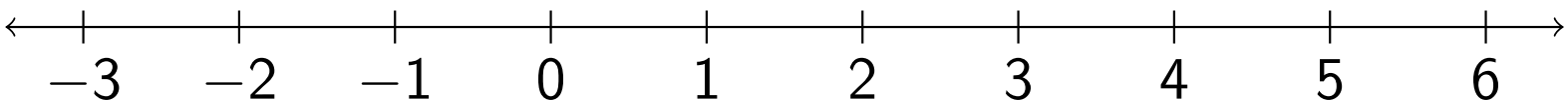
The midpoint M bisects the line segment $\overline{AB}$ and $AB = 12$.

1. Mark and label the approximate location of M.
2. Find AM. State an equation for full credit.



9) Finding lengths on the number line

Given $\overline{MN}$ with $M(1)$ and $N(5)$.

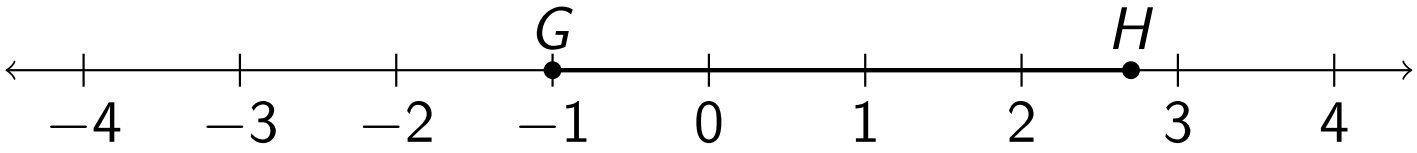


1. Mark and label the points and segment on the number line.
2. Find the length MN. Show your work as an equation.
3. Check your work by counting the distance. Leave marks to show your work.

10) Finding lengths on the number line

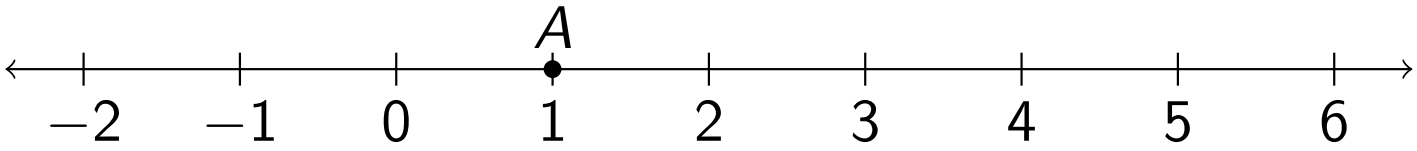
Given $G(-1)$ and $H(2.7)$, as shown on the number line.

Find the length of the line segment $\overline{GH}$. State an equation for full credit.



11) Finding lengths on the number line

Given point $A(1)$ as shown below. Locate point, $B > 0$, on the number line such that $AB = 4\frac{1}{2}$.

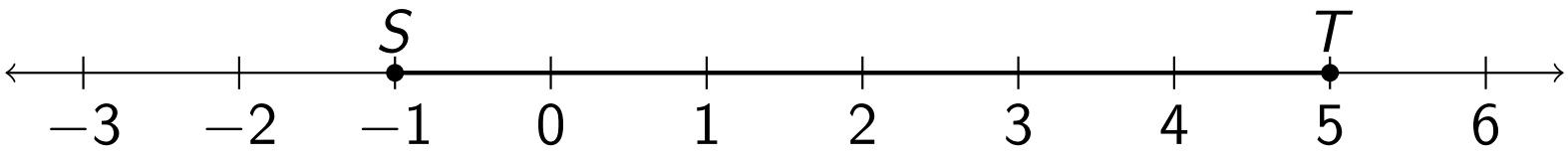


1. Mark and label B.
2. State the value of B, writing an equation to support your work.

12) Finding lengths on the number line

Given $S(-1)$ and $T(5)$, as shown on the number line.

Mark and label the midpoint M that bisects $\overline{ST}$.



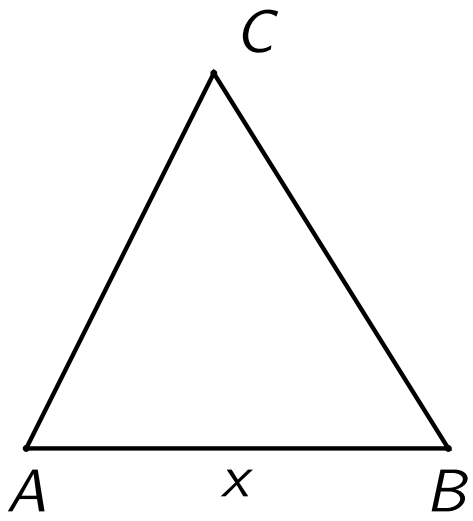
13) Applying the segment addition postulate (spicy)

Given M is the midpoint of $\overline{AB}$, $AM = 7x + 10$, $MB = 31$.

1. Mark the diagram with the values and tick marks
2. Write an equation and solve for x
3. Check your result

14) Applying the segment addition postulate (spicy)

Given equilateral $\triangle ABC$ having perimeter of 11. Find the length of side $\overline{AB}$, x, as a fraction (not a decimal).



15) Applying the segment addition postulate (spicy)

Given the points S and T trisect the line segment $\overline{RU}$, as shown below. If $SU = 6$, find RU.