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.
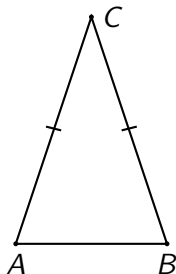
1. The intersection of the two lines: _____

2. The name of the plane: _____
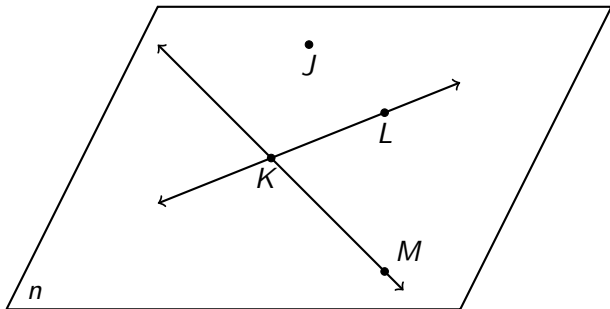
2) Diagrams and notation

What is shown in the diagram? Check 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

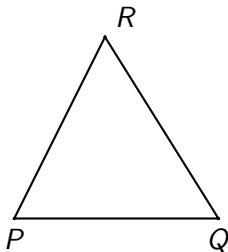Given the points D and E, draw ray $\overrightarrow{DE}$.

$\bullet\, D$

$\bullet\, E$

3) Diagrams and notation

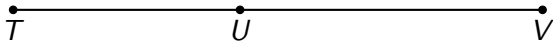Given isosceles $\triangle PQR$ with $\overline{PQ} \cong \overline{PR}$.

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

4) Applying the segment addition postulate

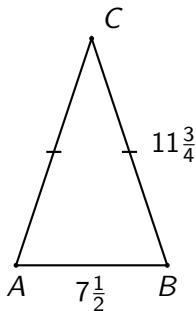Given $\overline{TUV}$, $UV = 5.4$, and $TV = 8.3$. Find TU.

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

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•————————————•————————————————————•
T            U                    V
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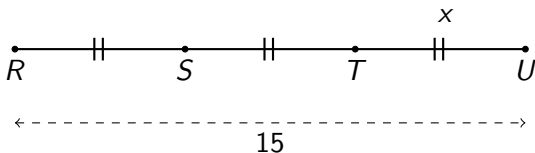
5) Applying the segment addition postulate

Find the perimeter of the isosceles $\triangle ABC$, given $\overline{AC} \cong \overline{BC}$, $AB = 7\frac{1}{2}$, and $BC = 11\frac{3}{4}$

Show your work with an equation for full credit.
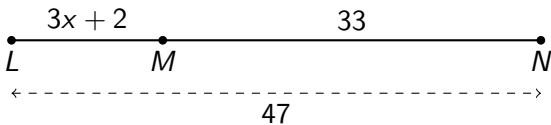
6) Applying the segment addition postulate

Given the points S and T trisect the line segment $\overline{RU}$, as shown below. If $RU = 15$, find $TU = x$.
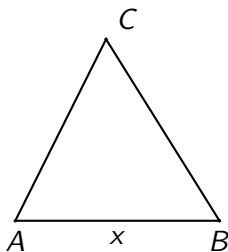
6) Applying the segment addition postulate

Given $\overline{LMN}$, $LM = 3x + 2$, $MN = 33$, $LN = 47$. Find x.

1. Write down an equation to represent the situation.

2. Solve for x.

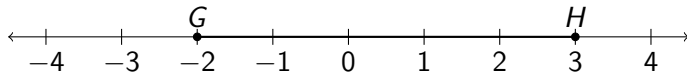3. Check your answer.

7) Applying the segment addition postulate

Given equilateral $\triangle ABC$ having perimeter of 14. Find the length of side $\overline{AB}$, x.

8) Finding lengths on the number line

Given $G(-2)$ and $H(3)$, as shown on the number line.

Find the length of the line segment $\overline{GH}$.

State an equation and the solution.

Check your work by counting the distance. Leave marks to show your work.

8) Finding lengths on the number line

Mark the points then take the difference in the points' values.
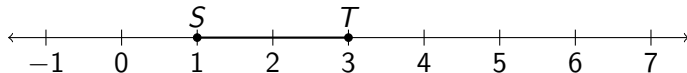
Given $\overline{GH}$ with $G(1)$ and $H(4.5)$.

1. Mark and label the points and segment on the number line.
2. What is the length of the segment $\overline{GH}$? Show your work as an equation.

9) Finding lengths on the number line (spicy)

Given $S(1)$ and $T(3)$, as shown on the number line.

Find point R, given that point S bisects $\overline{RT}$. Plot and label R on the number line.

10) Applying the segment addition postulate

Given M is the midpoint of $\overline{AB}$, $AM = 2x + 5$, $MB = 13$.

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

12) Applying the segment addition postulate

The points Q and R trisect the line segment $\overline{PS}$. $PS = 13\frac{1}{2}$.

1. Mark and label the approximate locations of Q and R.
2. Find PQ. State an equation for full credit.

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