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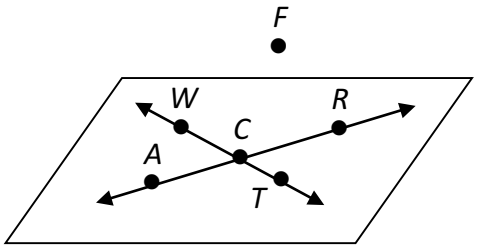
1st Six Weeks Test

1. Solve and justify the equation below

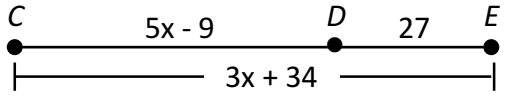
$3(x-7)=2(3x+9)$	
1.	1.
2.	2.
3.	3.
4.	4.
5.	5.

2. Draw and label a pair of opposite rays $\overrightarrow{FG}$ and $\overrightarrow{FH}$.

3. Name a plane that contains *AC*.

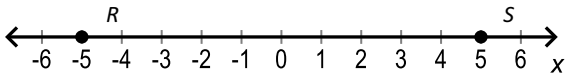


4. Use the figure below to solve for *x*.



5. What are the coordinates of the center of a circle, whose diameter has endpoints at (–5, 7) and (8, 14)?

6. Find the point *P* that lies along the line segment from point *R* (-5) to point *S* (5) and partitions the segment in the ratio 1 : 4.



7. $\overline{TA}$ has point *T* at (–5, 8), and midpoint *E* at (2, –1). What are the coordinates of the other endpoint *A*?

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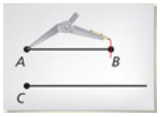
8. When bisecting a line segment, place the stylus on one point of the segment and set the compass width to

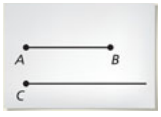
_____

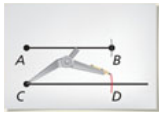
the distance of the segment.

9. On a gridded map, position *A* is at (-3, 2) and position *B* is at (6, 3). Find AB.

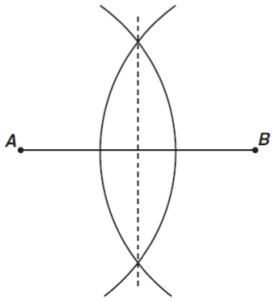
10. Put the steps in order to copy a segment.







11. What geometric construction is shown in the diagram below?



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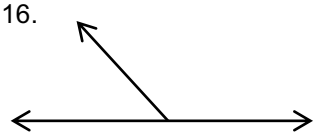
In exercise 12-15, draw an example of each angle.

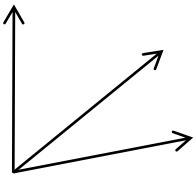
12. Acute Angle	13. Obtuse Angle
14. Right Angle	15. Linear Pair

In exercise 16-18, describe the following diagrams.

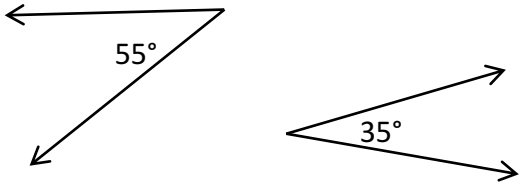
16.



17.



18.



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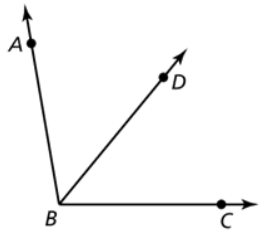
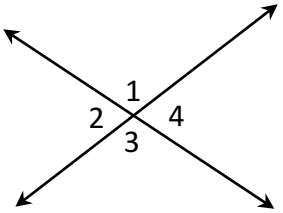
19. $\overrightarrow{BD}$ bisects $\angle ABC$. If $m\angle ABD = 42°$, what is the measure of $\angle ABC$?

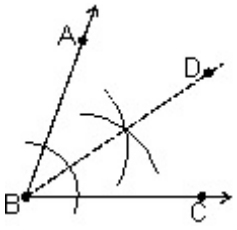


20. Without using a protractor, estimate the measures of $\angle 1$ below?

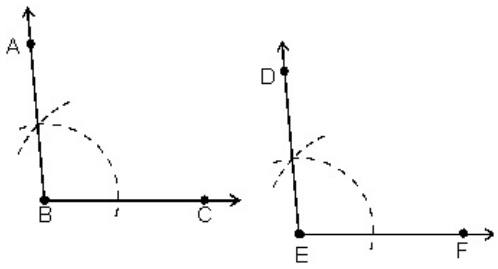


21. Based on the construction below, what can be stated about $\angle ABD$ and $\angle CBD$?

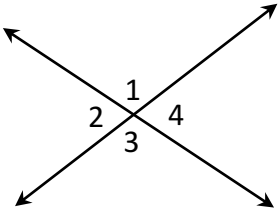
$\angle ABD$ and $\angle CBD$ are _____



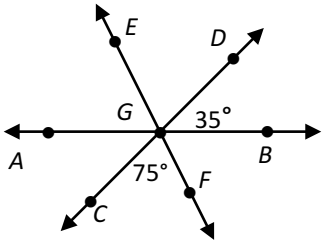
22. Based on the construction below, what can be stated about $\angle ABC$ and $\angle DEF$?



23. In the diagram below, the $m\angle 1 = (2x + 8)°$ and $m\angle 3 = (4x - 26)°$. Solve for x.



24. If $m\angle DGB = 35°$ and $m\angle CGF = 75°$, find the measure of the 4 remaining angles.



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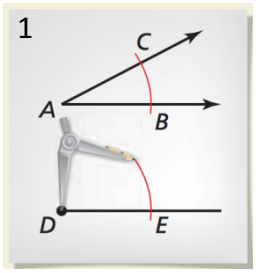
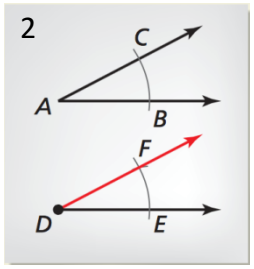
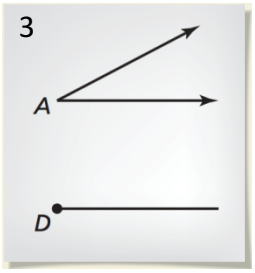
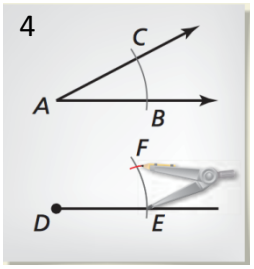
25. The pictures below show the steps of constructing a congruent angle. (G.5B)



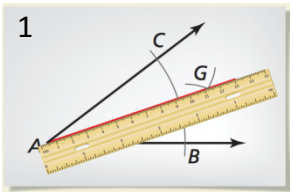


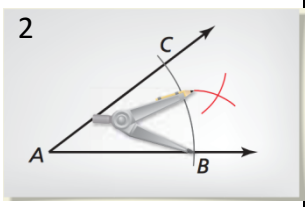


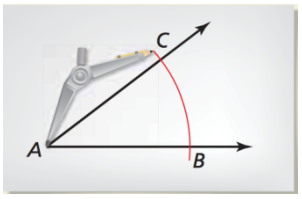


What order should the pictures be in to correctly construct a congruent angle?

26. The pictures below show the steps for constructing an angle bisector. (G.5B)







What order should the pictures be in to correctly construct an angle bisector?

Equations for 1st Six Weeks Test

Midpoint Formula

$$\left(\frac{x_1 + x_2}{2}, \frac{y_1 + y_2}{2}\right)$$

Partition

$$\frac{ax_1 + bx_x}{a + b}$$

Distance Formula

$$\sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$$