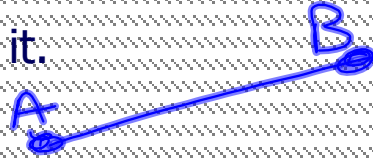


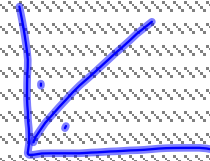
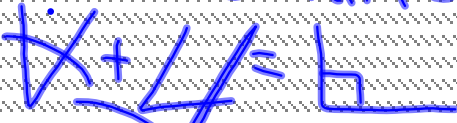
# Warmup

1) Draw a line segment and label it.

$\overline{AB}$



2) Write or draw something about the angle addition postulate. *Small + Small = big*



3) Write the steps for copying an angle by construction.



4) How many toilet-related injuries occur in the US every year?

40,000

---

# Unit 1 - Lesson 3

## SEGEMENT & ANGLE BISECTOR

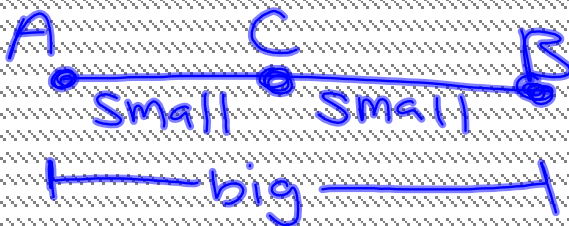
---

### ESSENTIAL QUESTIONS

WHAT DOES BISECTOR MEAN AND HOW IS IT INTERPRETED WITH A SEGMENT AND AN ANGLE?

# Segment Addition Postulate

If C is between A and B then,  $AC + BC = AB$



$AC + BC = AB$   
 $-AC$   $-AC$   
 $* BC = AB - AC$   
 $* AC = AB - BC$

Could you write the postulate differently?

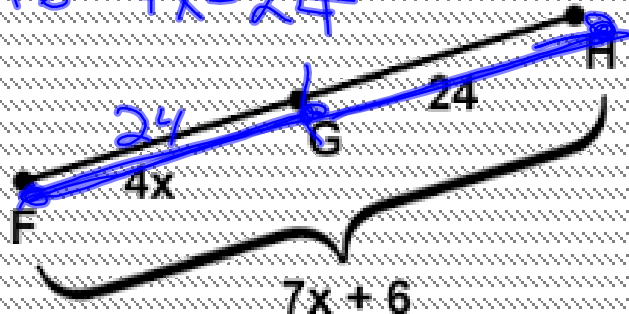
Find the value of x.

$$\begin{array}{r} 7x + 6 = 4x + 24 \\ -4x \quad -4x \\ \hline 3x + 6 = 24 \end{array}$$

$$\begin{array}{r} 3x + 6 = 24 \\ -6 \quad -6 \\ \hline 3x = 18 \end{array}$$

$$\begin{array}{r} 3x = 18 \\ \hline x = 6 \end{array}$$

~~$7x + 6 = 4x + 24$~~

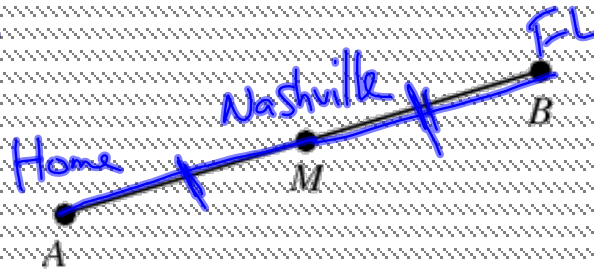


$$7(6) + 6 = 48$$

# Midpoint-Segment Bisector

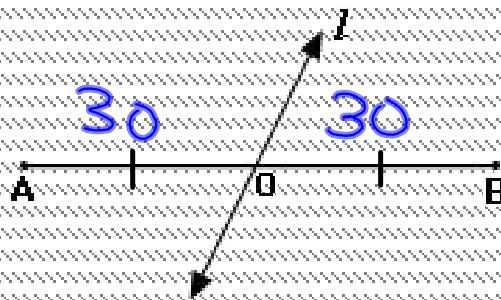
The **midpoint** of a segment is the point that divides the segment into two congruent segments.

equal  
the same



A **segment bisector** is a point, ray, line segment, line, or plane that intersects the segment at its midpoint.

cut in half



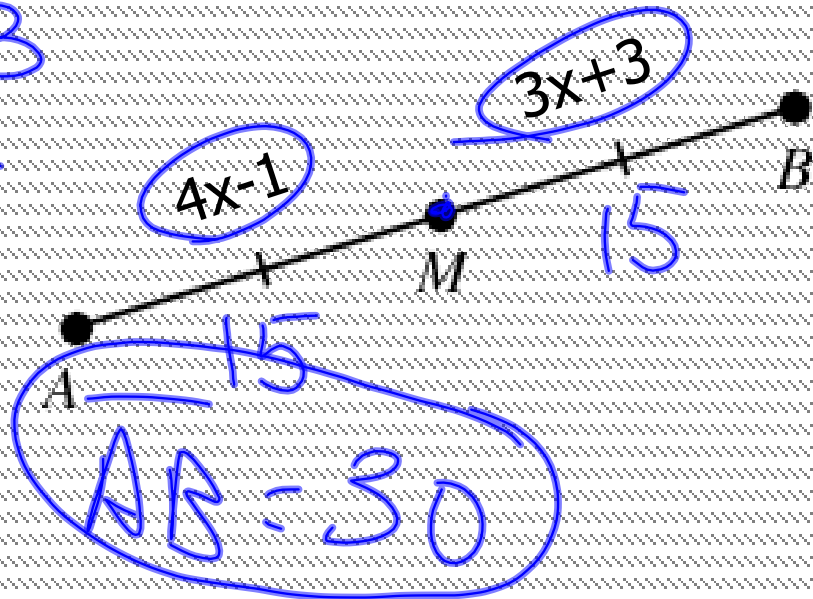
## Example

Find the value of  $x$  and  $AB$ .

$$\begin{array}{r} 4x - 1 = 3x + 3 \\ -3x \quad -3x \\ \hline \end{array}$$

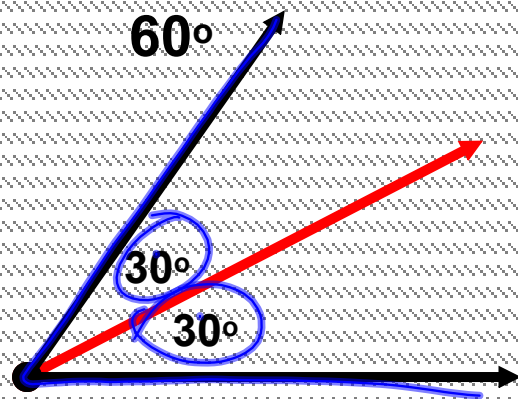
$$\begin{array}{r} 1x - 1 = 3 \\ +1 \quad +1 \\ \hline \end{array}$$

$$x = 4$$



# Angle Bisector

An angle bisector is a line or ray that divides an angle into two congruent angles.

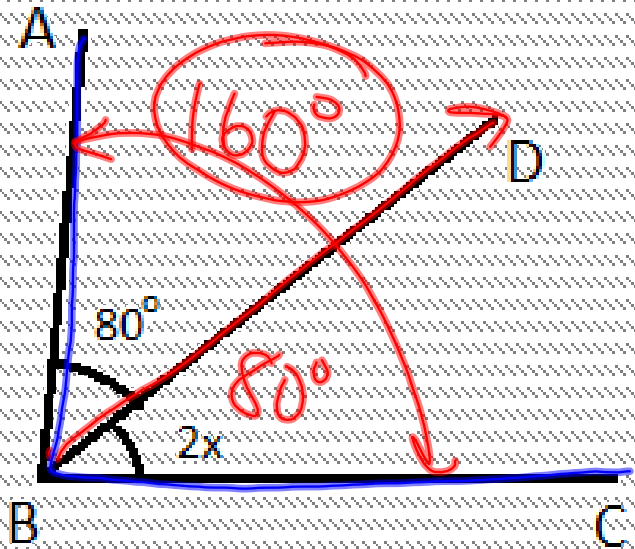


## Example

If BD bisects  $\angle ABC$ , find  $\angle ABC$ .

$$\frac{80}{2} = \frac{2x}{2}$$

$$x = 40$$



# Reflect + HW

Segment Addition

Midpoint

Segment Bisector

Angle Bisector

1.3 Segment & Angle Bisector WS

Due: \_\_\_\_\_

