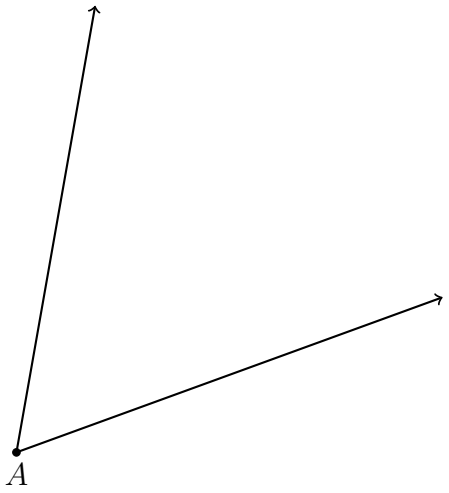
BECA / Dr. Huson / 10th Grade Geometry Name: .
31 May 2019

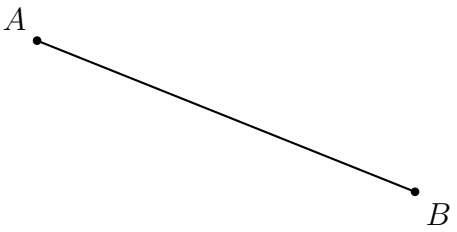
Do Now: Construction & similarity pre-quiz

Use only a compass and straightedge for these classical constructions, showing all construction marks.

1. Bisect the given angle.

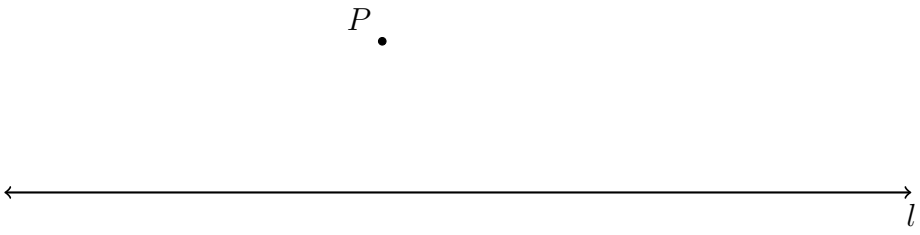


2. Construct the perpendicular bisector to $\overline{AB}$.

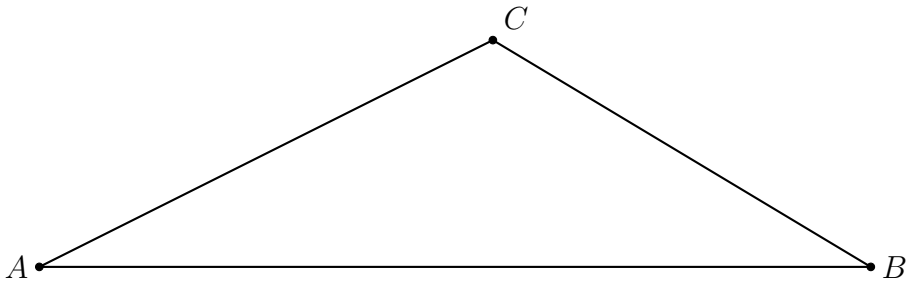


BECA / Dr. Huson / 10th Grade Geometry Name: .
31 May 2019

3. Given the line l and point P, construct the perpendicular to l through P.

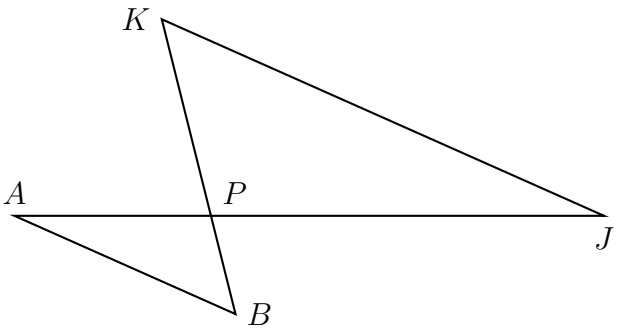


4. Construct a perpendicular to $\overline{AB}$ though C.



BECA / Dr. Huson / 10th Grade Geometry Name: .
31 May 2019

5. Given $\overline{APJ}$ and $\overline{KPB}$ as shown below. $\overline{AB} \parallel \overline{JK}$. $AP = 4.8$, $JP = 12$, and $BP = 2.2$.



(a) $\triangle ABP \sim$ _____

(b) $\overline{AP} \rightarrow$ _____

(c) $\overline{BP} \rightarrow$ _____

(d) What is the scale factor?

$k =$ _____ $=$

(e) Find KP.

6. Given, the diagram below, with $\overline{ABD}$, $\overline{ACE}$, and $\angle ABC \cong \angle AED$. $AB = 10$, $AC = 8$, and $AD = 14$.

(a) $\triangle ABC \sim$ _____

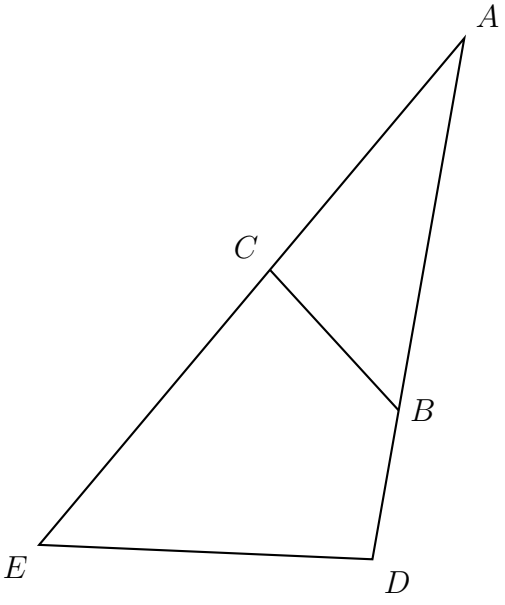
(b) $\overline{AB} \rightarrow$ _____

(c) $\overline{AC} \rightarrow$ _____

(d) What is the scale factor?

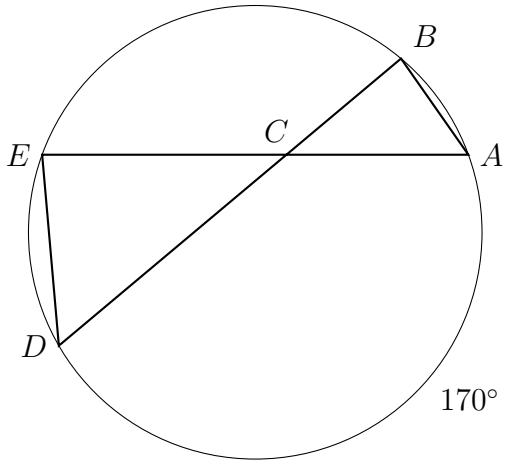
$k =$ _____ $=$

(e) Find AE.



BECA / Dr. Huson / 10th Grade Geometry Name: .
31 May 2019

7. In the diagram below, the chords $\overline{AE}$ and $\overline{BD}$ intersect at C. Given that $AC = 5$, $BC = 4$, and $CE = 10$. The arc measure of $m\widehat{AD} = 170°$.



(a) $\triangle ABC \sim$ _____

(b) $\overline{AC} \rightarrow$ _____

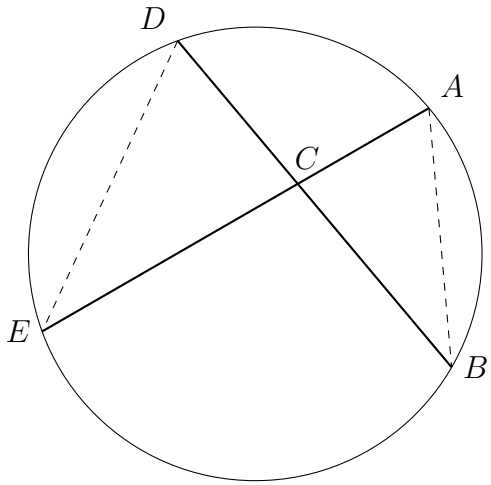
(c) $\overline{BC} \rightarrow$ _____

(d) What is the scale factor?

$k =$ _____ =

(e) Find CD.

8. In the diagram below, the chords $\overline{AE}$ and $\overline{BD}$ intersect at C. Given that $AC = 6$, $BC = 9$, and $CE = 12$.



(a) $\triangle ABC \sim$ _____

(b) $\overline{AC} \rightarrow$ _____

(c) $\overline{BC} \rightarrow$ _____

(d) What is the scale factor?

$k =$ _____ =

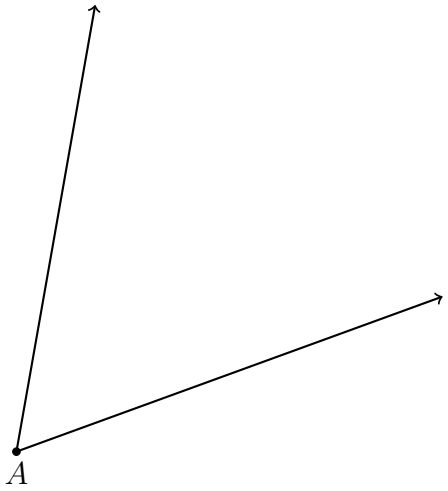
(e) Find CD.

BECA / Dr. Huson / 10th Grade Geometry Name: .
31 May 2019

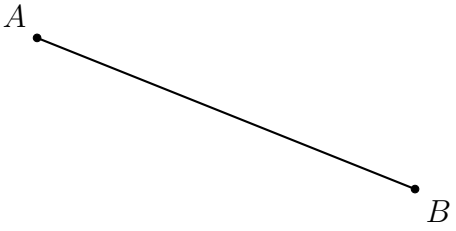
Exit Note: Construction & similarity quiz

Use only a compass and straightedge for these classical constructions, showing all construction marks.

1. Bisect the given angle.

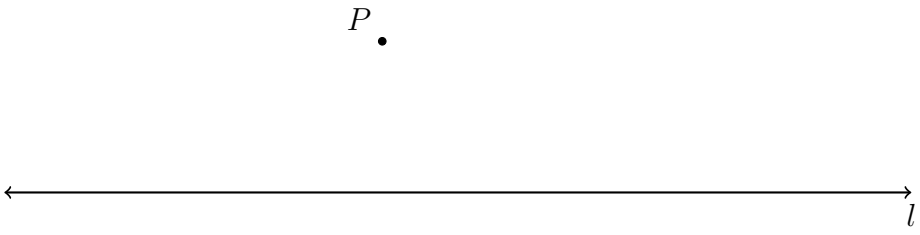


2. Construct the perpendicular bisector to $\overline{AB}$.

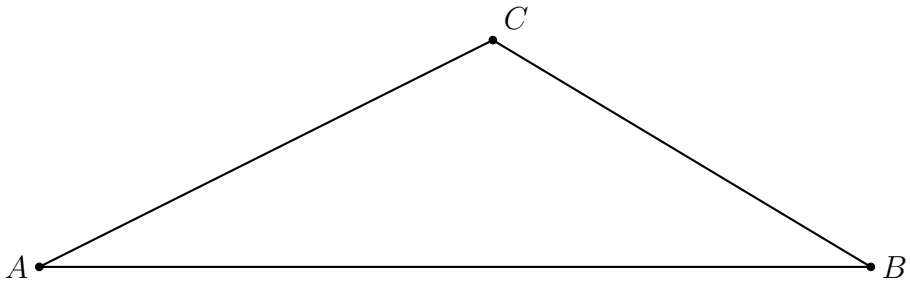


BECA / Dr. Huson / 10th Grade Geometry Name: .
31 May 2019

3. Given the line l and point P, construct the perpendicular to l through P.

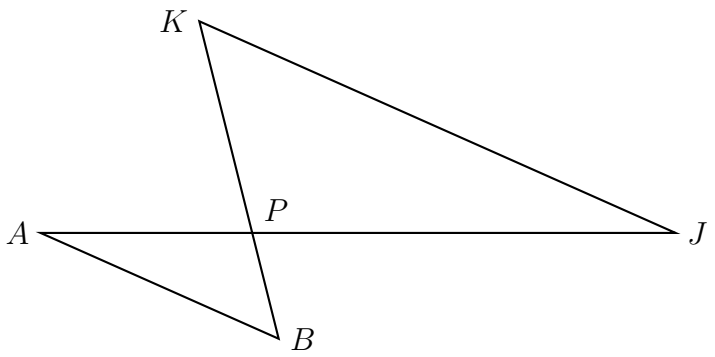


4. Construct a perpendicular to $\overline{AB}$ though C.



BECA / Dr. Huson / 10th Grade Geometry Name: .
31 May 2019

5. Given $\overline{APJ}$ and $\overline{KPB}$ as shown below. $\overline{AB} \parallel \overline{JK}$. $AP = 4.8$, $JP = 12$, and $BP = 2.2$.



(a) $\triangle ABP \sim$ _____

(b) $\overline{AP} \rightarrow$ _____

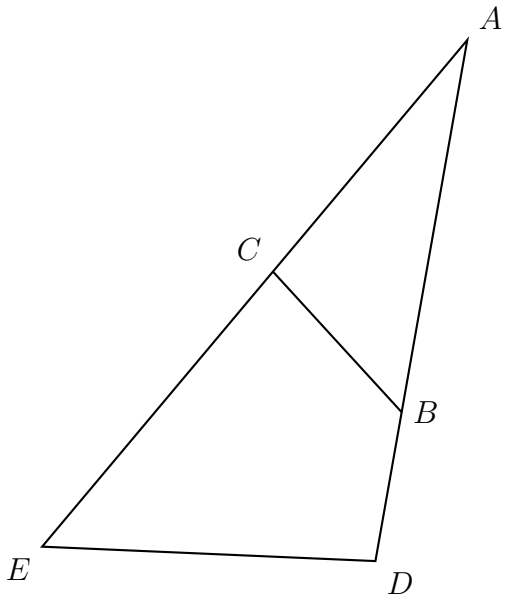
(c) $\overline{BP} \rightarrow$ _____

(d) What is the scale factor?

$k =$ _____ $=$

(e) Find KP.

6. Given, the diagram below, with $\overline{ABD}$, $\overline{ACE}$, and $\angle ABC \cong \angle AED$. $AB = 10$, $AC = 8$, and $AD = 14$.



(a) $\triangle ABC \sim$ _____

(b) $\overline{AB} \rightarrow$ _____

(c) $\overline{AC} \rightarrow$ _____

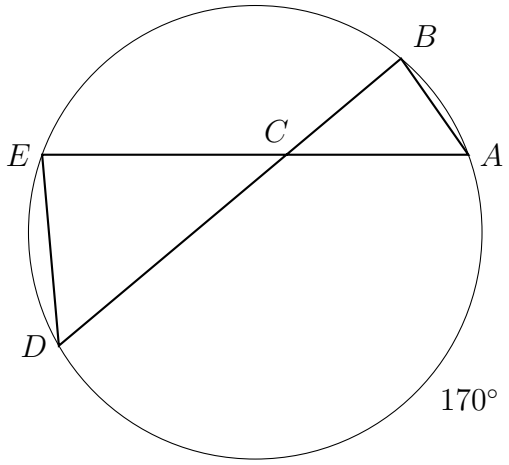
(d) What is the scale factor?

$k =$ _____ $=$

(e) Find AE.

BECA / Dr. Huson / 10th Grade Geometry Name: .
31 May 2019

7. In the diagram below, the chords $\overline{AE}$ and $\overline{BD}$ intersect at C. Given that $AC = 5$, $BC = 4$, and $CE = 10$. The arc measure of $m\widehat{AD} = 170°$.



(a) $\triangle ABC \sim$ _____

(b) $\overline{AC} \rightarrow$ _____

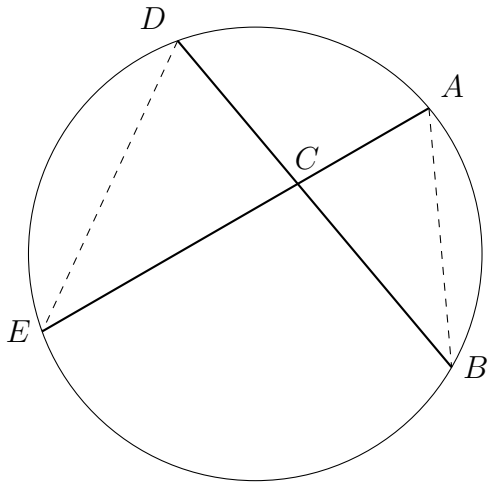
(c) $\overline{BC} \rightarrow$ _____

(d) What is the scale factor?

$k =$ _____ =

(e) Find CD.

8. In the diagram below, the chords $\overline{AE}$ and $\overline{BD}$ intersect at C. Given that $AC = 6$, $BC = 9$, and $CE = 12$.



(a) $\triangle ABC \sim$ _____

(b) $\overline{AC} \rightarrow$ _____

(c) $\overline{BC} \rightarrow$ _____

(d) What is the scale factor?

$k =$ _____ =

(e) Find CD.