## MTH 211, Math for Architects, Spring 2014

Ayman Badawi

QUESTION 1. (Haya Alsalama and Zainab Zayed) Draw a reasonable line segment and call it $A B$. Construct a point $C$ on the line segment $A B$ such that $\frac{|A C|+|C B|}{|A C|}=1.5 \frac{|A C|}{|C B|}$. Let us call the ratio where $\frac{|A C|+|C B|}{|A C|}=1.5 \frac{|A C|}{|C B|}$ Group-one-silver-ratio. What is the numerical value of this ratio? (Only unmarked ruler and a compass are allowed in this construction)

STATE the steps CLEARLY and try to be BRIEF to the point.
QUESTION 2. (Habib Bitar ) Draw a reasonable line segment and call it $A B$. Construct a point $C$ on the line segment $A B$ such that $\frac{|A C|+|C B|}{|A C|}=1.25 \frac{|A C|}{|C B|}$. Let us call the ratio where $\frac{|A C|+|C B|}{|A C|}=$ 1.25 $\frac{|A C|}{|C B|}$ Group-two-silver-ratio. What is the numerical value of this ratio? (Only unmarked ruler and a compass are allowed in this construction)

STATE the steps CLEARLY and try to be BRIEF to the point.
QUESTION 3. ( Mohamamd Latifi and Fatima Al-Awadi) Draw a reasonable line segment and call it $A B$. Construct a point $C$ on the line segment $A B$ such that $\frac{|A C|+|C B|}{|A C|}=1.75 \frac{|A C|}{|C B|}$. Let us call the ratio where $\frac{|A C|+|C B|}{|A C|}=1.75 \frac{|A C|}{|C B|}$ Group-three-silver-ratio. What is the numerical value of this ratio? (Only unmarked ruler and a compass are allowed in this construction)

STATE the steps CLEARLY and try to be BRIEF to the point.

## QUESTION 4. (Nasser Alzayani, Xeina AlMalki, Yasmeen Hamouda, and Abdulmalik Ghazzawi )

Draw a reasonable line segment and call it $A B$. Construct a point $C$ on the line segment $A B$ such that $\frac{|A C|+|C B|}{|A C|}=$ $0.5 \frac{|A C|}{|C B|}$. Let us call the ratio where $\frac{|A C|+|C B|}{|A C|}=0.5 \frac{|A C|}{|C B|}$ Group-four-silver-ratio. What is the numerical value of this ratio? (Only unmarked ruler and a compass are allowed in this construction)

STATE the steps CLEARLY and try to be BRIEF to the point.

## QUESTION 5. ( Alia Hantash, , Basant ElShimy, and Fay El Mutwalli )

Draw a reasonable line segment and call it $A B$. Construct a point $C$ on the line segment $A B$ such that $\frac{|A C|+|C B|}{|A C|}=$ $2.5 \frac{|A C|}{|C B|}$. Let us call the ratio where $\frac{|A C|+|C B|}{|A C|}=2.5 \frac{|A C|}{|C B|}$ Group-five-silver-ratio. What is the numerical value of this ratio? (Only unmarked ruler and a compass are allowed in this construction)

STATE the steps CLEARLY and try to be BRIEF to the point.
QUESTION 6. ( Mariam Alzaabi, Nada Abushaqra, Hala Aljuboori, and Haia Machfij )
Draw a reasonable line segment and call it $A B$. Construct a point $C$ on the line segment $A B$ such that $\frac{|A C|+|C B|}{|A C|}=$ $3 \frac{|A C|}{|C B|}$. Let us call the ratio where $\frac{|A C|+|C B|}{|A C|}=3 \frac{|A C|}{|C B|}$ Group-six-silver-ratio. What is the numerical value of this ratio? (Only unmarked ruler and a compass are allowed in this construction)

STATE the steps CLEARLY and try to be BRIEF to the point.

QUESTION 7. ( Rami Abdulhamid and Mohamed saleh ) Draw a reasonable line segment and call it $A B$. Construct a point $C$ on the line segment $A B$ such that $\frac{|A C|+|C B|}{|A C|}=0.25 \frac{|A C|}{|C B|}$. Let us call the ratio where $\frac{|A C|+|C B|}{|A C|}=0.25 \frac{|A C|}{|C B|}$ Group-seven-silver-ratio. What is the numerical value of this ratio? (Only unmarked ruler and a compass are allowed in this construction)

STATE the steps CLEARLY and try to be BRIEF to the point.

## QUESTION 8. (Nada almulla, Salwa alkhudairi, and Manar kamal)

Draw a reasonable line segment and call it $A B$. Construct a point $C$ on the line segment $A B$ such that $\frac{|A C|+|C B|}{|A C|}=$ $2.25 \frac{|A C|}{|C B|}$. Let us call the ratio where $\frac{|A C|+|C B|}{|A C|}=2.25 \frac{|A C|}{|C B|}$ Group-eight-silver-ratio. What is the numerical value of this ratio? (Only unmarked ruler and a compass are allowed in this construction)

STATE the steps CLEARLY and try to be BRIEF to the point.

## QUESTION 9. (Jonas)

Draw a reasonable line segment and call it $A B$. Construct a point $C$ on the line segment $A B$ such that $\frac{|A C|+|C B|}{|A C|}=$ $3.5 \frac{|A C|}{|C B|}$. Let us call the ratio where $\frac{|A C|+|C B|}{|A C|}=3.5 \frac{|A C|}{|C B|}$ Group-ten-silver-ratio. What is the numerical value of this ratio? (Only unmarked ruler and a compass are allowed in this construction) STATE the steps CLEARLY and try to be BRIEF to the point.

## Faculty information

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