MTH 211 Geometry for Art and Architecture Spring 2014, 1-2

MTH 211, Math for Architects, Spring 2014

Ayman Badawi

QUESTION 1. (Haya Alsalama and Zainab Zayed) Draw a reasonable line segment and call it AB. Construct a point C on the line segment AB such that $\frac{|AC|+|CB|}{|AC|} = 1.5 \frac{|AC|}{|CB|}$. Let us call the ratio where $\frac{AC|+|CB|}{|AC|} = 1.5 \frac{|AC|}{|CB|}$ 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 AB. Construct a point C on the line segment AB such that $\frac{|AC|+|CB|}{|AC|} = 1.25 \frac{|AC|}{|CB|}$. Let us call the ratio where $\frac{|AC|+|CB|}{|AC|} = 1.25 \frac{|AC|}{|CB|}$ 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 AB. Con-**QUESTION 3.** (Mohamama Laun and Fature Aradia, Structure 1997) Struct a point *C* on the line segment *AB* such that $\frac{|AC| + |CB|}{|AC|} = 1.75 \frac{|AC|}{|CB|}$. Let us call the ratio

where $\frac{|AC|+|CB|}{|AC|} = 1.75 \frac{|AC|}{|CB|}$ 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 AB. Construct a point C on the line segment AB such that $\frac{|A|}{|A|}$

$$\frac{AC|+|CB|}{|AC|} =$$

 $0.5 \frac{|AC|}{|CB|}$. Let us call the ratio where $\frac{|AC| + |CB|}{|AC|} = 0.5 \frac{|AC|}{|CB|}$ 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 AB. Construct a point C on the line segment AB such that

$$\frac{|C|+|C|D|}{|AC|} =$$

 $2.5 \frac{|AC|}{|CB|}$. Let us call the ratio where $\frac{|AC|+|CB|}{|AC|} = 2.5 \frac{|AC|}{|CB|}$ 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 AB. Construct a point C on the line segment AB such that $\frac{|AC|+|CB|}{|AC|} =$

 $3\frac{|AC|}{|CB|}$. Let us call the ratio where $\frac{|AC|+|CB|}{|AC|} = 3\frac{|AC|}{|CB|}$ 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 AB. Con-

struct a point C on the line segment AB such that $\frac{|AC|+|CB|}{|AC|} = 0.25 \frac{|AC|}{|CB|}$. Let us call the ratio $\frac{+|CB|}{|AC|} = 0.25 \frac{|AC|}{|CB|}$ Group-seven-silver-ratio. What is the numerical value of this ratio?

where

(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 AB. Construct a point C on the line segment AB such that $\frac{|AC| + |CB|}{|AC|} =$

$$2.25 \frac{|AC|}{|CB|}$$
. Let us call the ratio where $\frac{|AC| + |CB|}{|AC|} = 2.25 \frac{|AC|}{|CB|}$ 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 AB. Construct a point C on the line segment AB such that $\frac{|AC|+|CB|}{|AC|}$ =

 $3.5\frac{|AC|}{|CB|}$. Let us call the ratio where $\frac{|AC|+|CB|}{|AC|} = 3.5\frac{|AC|}{|CB|}$ 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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