

MTH 211, Math for Architects, Spring 2014

Ayman Badawi

QUESTION 1. (Haya Alsalama and Zainab Zayed) First Draw or make a triangle abc such that the angle at b is 90° , color it with blue, the angle at c is 45° , color it with red, and the angle at a is 45° , color it with green. Make the length of the base, say $bc = 1.5$ cm. Use pieces of this type of triangles to tile a piece of paper so that all around a should be in green, all around b should be in blue, and all around c should be in red.

QUESTION 2. (Habib Bitar) Start with an equilateral triangle abc such that each side is 1.6 cm and find the midpoint of each side. Draw a curve (any curve) from the midpoint of ab to the vertex a , then rotate a copy of it around the midpoint of ab . Repeat the same procedure for the the side bc and the side ac (you may use different curves) on bc and ac). USE pieces of this object to tile a piece of paper.

QUESTION 3. (Mohamad Latifi and Fatima Al-Awadi) Start with a square $abcd$ such that each side is 1.6 cm and find the midpoint of each side. Draw a curve (any curve) from the midpoint of ab to the vertex a , then rotate a copy of it around the midpoint of ab . Repeat the same procedure for the the sides bc cd , and ad (you may use different curves) on bc cd , and ad). USE pieces of this object to tile a 12×12 board. Use your own taste of coloring.

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

Use regular 12-gons and equilateral triangles to tile a LARGE piece of paper such that the length of each side of these two objects is 0.5 cm. USE your own taste of coloring.

QUESTION 5. (Alia Hantash, , Basant ElShimy, and Fay El Mutwalli) Start with a 2×1 rectangle $abcd$. Find the midpoint of each side. Draw a curve (any curve) from the midpoint of ab to the vertex a , then rotate a copy of it around the midpoint of ab . Repeat the same procedure for the the sides bc cd , and ad (you may use different curves) on bc cd , and ad). USE pieces of this object to tile a 12×12 board.

QUESTION 6. (Mariam Alzaabi, Nada Abushagra, Hala Aljuboori, and Haia Machfij) First Draw or make a triangle abc such that the angle at b is 90° , color it with blue, the angle at c is 30° , color it with red, and the angle at a is 60° , color it with green. Make the length of the base, say $bc = 1$ cm. Use pieces of this type of triangles to tile a piece of paper so that all around a should be in green, all around b should be in blue, and all around c should be in red.

QUESTION 7. (Rami Abdulhamid and Mohamed saleh) Start with a regular 6-gon. abcdef such that each side is 1 cm and find the midpoint of each side. Draw a curve (any curve) from the midpoint of ab to the vertex a, then rotate a copy of it around the midpoint of ab. Repeat the same procedure for the remaining sides (you may use different curves) on the remaining sides. USE pieces of this object to tile a LARGE piece of paper.

QUESTION 8. (Nada almulla, Salwa alkhudairi, and Manar kamal) Start with one regular 6-gon, two squares, and one equilateral triangle such that the length of each side of these three objects is 1 cm. Use pieces of these three objects to tile a LARGE piece of paper.

Faculty information

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