Geometry for the Arts and Architecture MTH 211 Fall 2009, 1–2

First set of projects Fall 2009

Ayman Badawi

1 Group: Vishal Sawlani, James Moussa, Odulana Adetayo

- (i) Construct an equilateral triangle over a given side (Book, Page 13, Number one)
- (ii) Bisect a given angle. (BOOK, Page 13, Number 3)

2 Group: Hiba AlSafi, Dana Nabtiti, Masa Afaneh

- (i) Given a segment of length d, construct a segment of length \sqrt{d} (Book, Page 14, Number 6(b))
- (ii) Given a point A on a line L, construct a line through A and perpendicular to L (Book, Page 13, Number 2)

3 Group: Dalia AlOurfali, Noor AbdulHamid, Suzan Momani

- (i) Double a given angle (Book, Page 13, number 4)
- (ii) Given one of the two diagonals of a square, construct the square (Book, Page 14, 6(a))

4 Group: Suheyla Takesh, Leen Rihawi, Aman

- (i) Given a line segment L, subdivide L into 7 equal parts (Book, page 13, number 6)
- (ii) Given a line L and a point A outside L, construct a line M passing through A and intersecting L at 30 degrees (Book, Page 13, Number 7))

5 Group: Farah Nasri , Seyede Pariya Manafi, Sawsan Al Bahar

- (i) Construct an angle of 15 degrees (Book, page 13, number 5)
- (ii) Given two line segments intersect at a point O and A is a point that does not lie on any of the two lines, construct a line passing through A and intersecting the two lines at the points B and C in such a way that AB = AC (book , page 14, number 9).

6 Group: Nedal Machou, Dana Salam, Momen Abdalghani

- (i) Given two lines intersect at a point O and A is a point that does not lie on any of the two lines, construct a line passing through A and intersecting the two lines at the points B and C in such a way that OB = OC (book, page 14)
- (ii) Given a line segment of length d. Use compass and Ruler only to construct a line segment of length $\sqrt{5d}$

7 Group: Khalda El Jack, Reyan Hanafi

You may use a line segment of length 1cm as one of the instruments.

- (i) Given two segments of length 8cm and 9cm, construct a segment of length 8/9cm
- (ii) Given two segments of length 8cm and 9cm, construct a segment of length 9/8cm

8 Group: Sepideh, Shital, Safa

(i) Inscribe (draw) a square inside a semicircle.

10 Group: Vahid Farbod, Abdolreza Khalili, Seyedeh Negar Sanadizadeh

- (i) Construct an angle of 120 degrees.
- (ii) Given two lines, say L1 and L2, intersect at a point O such that the angle they make at O is less than 90 degrees, and let A be a point that does not lie on any of the two lines. Find two points, say C on L1 and D on L2, such that OC = CD and A lies on the height of the triangle OCD.

Faculty information

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