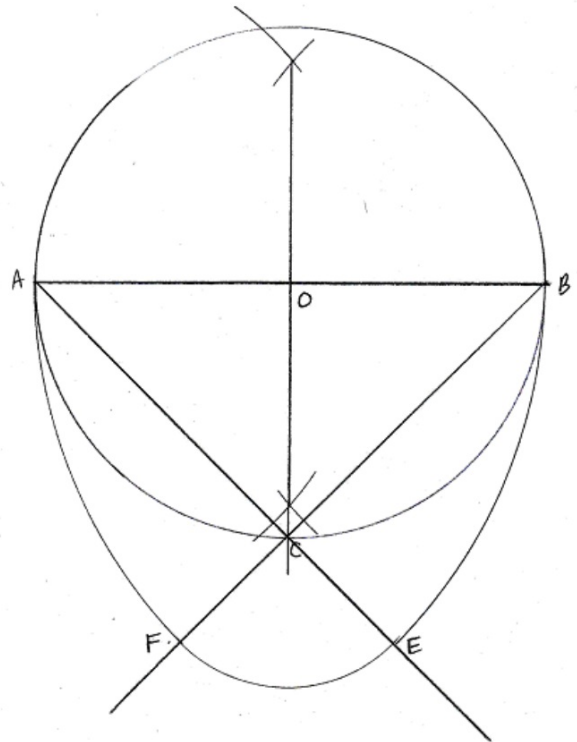


HOW TO CONSTRUCT AN EGG

- 1) Draw any \overline{AB} (leave room above and below the segment for your construction)
- 2) Construct the perpendicular bisector of \overline{AB}
- 3) Label midpoint as O
- 4) Now draw the circle with center O and OA as the radius
- 5) Label the bottom point of intersection between the circle and the perpendicular bisector C
- 6) Draw \overline{AC} and \overline{BC}
- 7) With A as the center and AB as the radius, construct \widehat{BE}
- 8) With B as the center and AB as the radius, construct \widehat{AF}
- 9) With C as the center and CF as the radius, construct \widehat{FE}



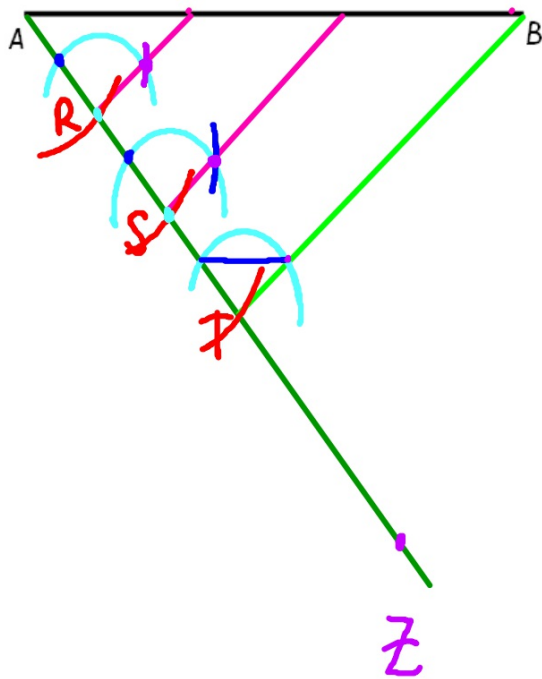
**SECTION 10.5:
SPECIAL SEGMENTS**

CONSTRUCTION 12

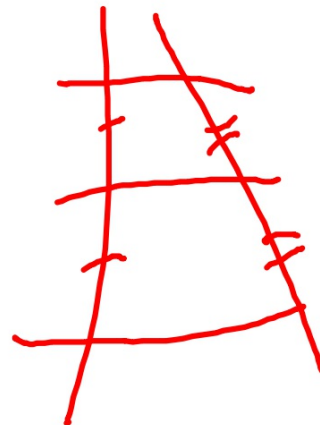
Given a segment, divide the segment into a given number of congruent parts.

EXAMPLE I

Divide \overline{AB} into three congruent segments.

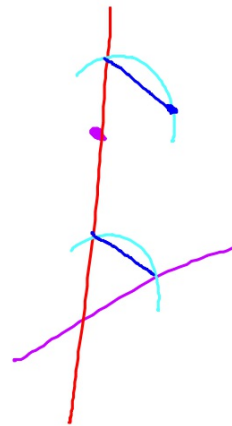
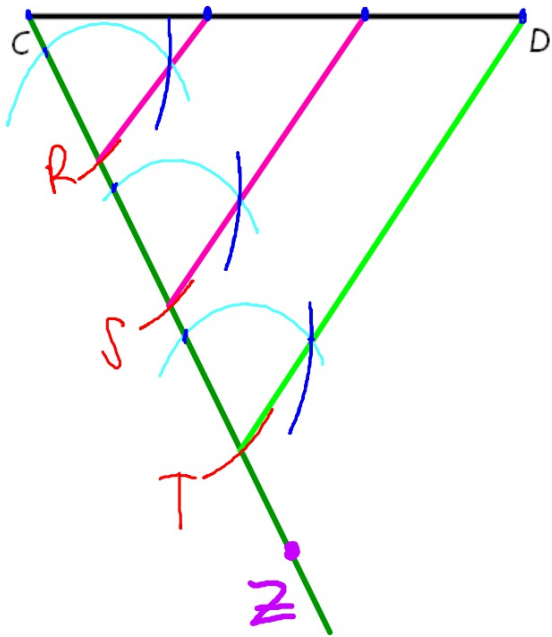


1. Draw \overline{AZ} (Z not on \overline{AB})
2. Starting from A, mark 3 congruent segments so $\overline{AR} = \overline{RS} = \overline{ST}$ ON \overline{AZ}
3. Connect \overline{TB}
4. At R and S construct lines \parallel to \overline{TB} intersecting \overline{AB} in X and Y



YOUR TURN

Divide \overline{CD} into three congruent segments.



CONSTRUCTION 13

Given three segments, construct a fourth segment so that the four segments are in proportion.

EXAMPLE 2

Given segments with lengths a , b , and c , construct a segment of length x such that $\frac{a}{b} = \frac{c}{x}$.

a

b

c

1.

2.

3.

4.

5.

6.

YOUR TURN

Given segments with lengths a , b , and c , construct a segment of length x such that $\frac{a}{b} = \frac{c}{x}$.




CONSTRUCTION 14

Given two segments, construct their geometric mean.


EXAMPLE 3

Given segments with lengths a and b , construct a segment of length x such that $\frac{a}{x} = \frac{x}{b}$ (or $x = \sqrt{ab}$).

a



b



1.

2.

3.

4.

5.

YOUR TURN

Given segments with lengths a and b , construct a segment of length x such that $\frac{a}{x} = \frac{x}{b}$ (or $x = \sqrt{ab}$).



HOMEWORK

Assignment #10.5a

- Practice 10-4B Worksheet
- Worksheet 10-5

****WEDNESDAY - CHAPTER 10 TEST****

