

1 a. Draw a sign to be posted at the Bugibba promenade to indicate that people should clean up after their dogs.

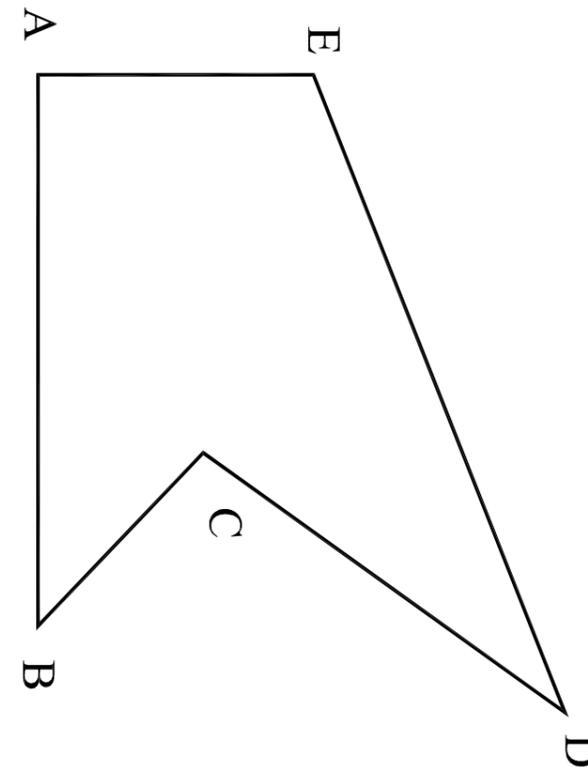
**OR**

b. Draw a sign to be posted at Kullegg San Benedittu Kirkop to indicate that unhealthy food is not allowed.

Choose either (a) or (b)

(15 marks)

2. Convert the given irregular polygon into a square of the same area. Measure the sides of the square and state your answer. (15 marks)



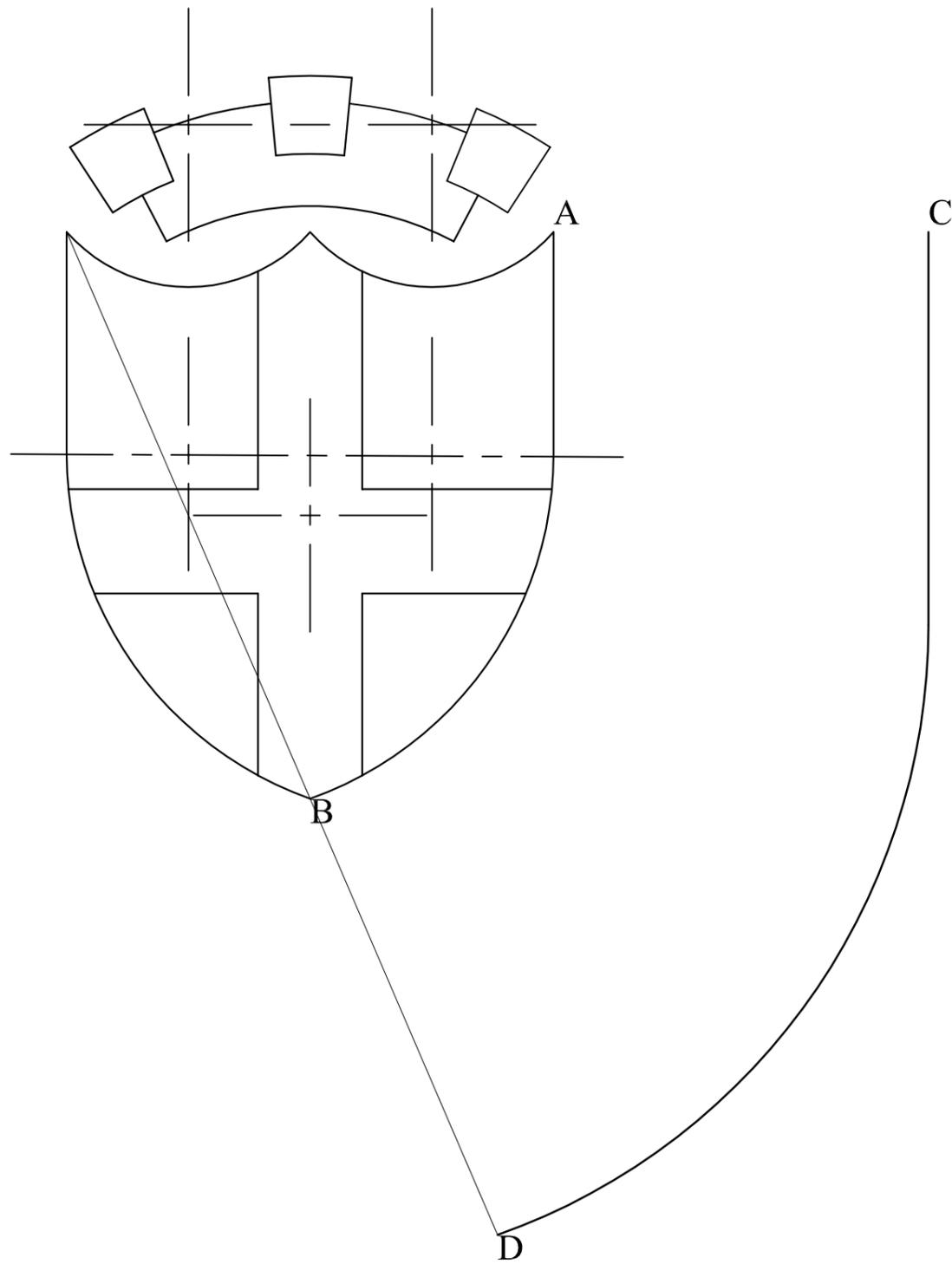
Side of square = \_\_\_\_\_ mm

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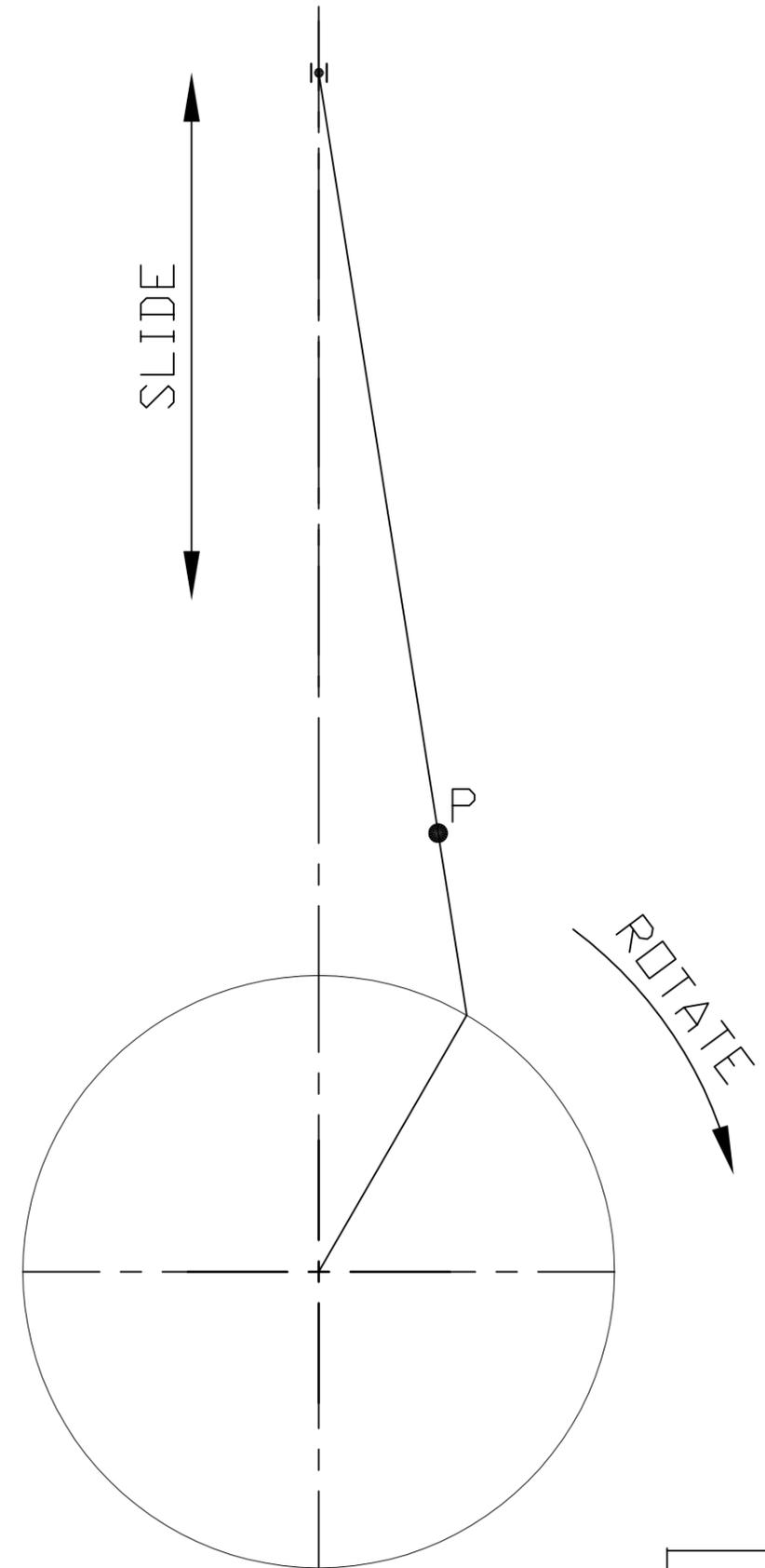
3. Enlarge the given emblem so that line AB becomes line CD.

(17 marks)



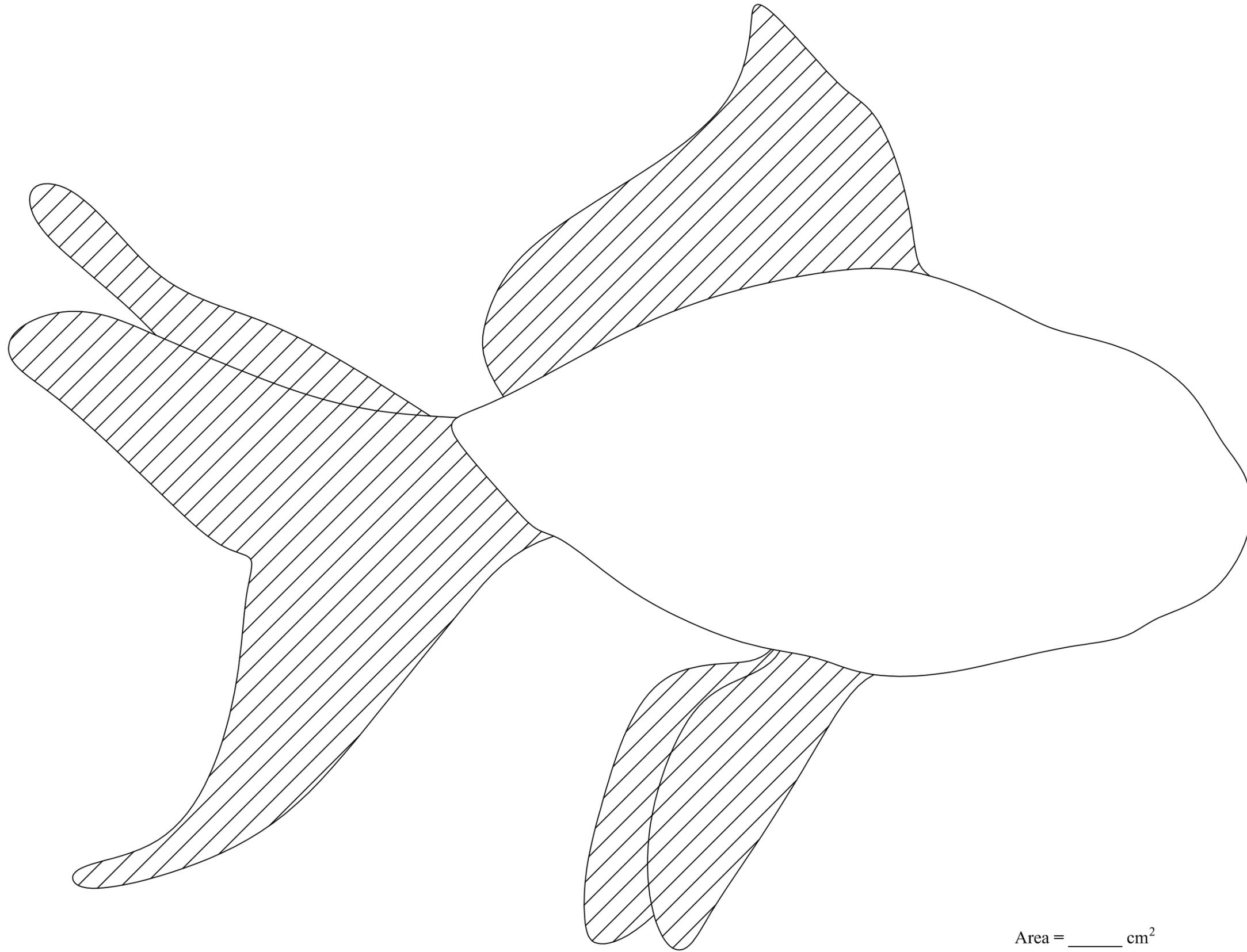
4. Find the locus of point P in the given crank and piston mechanism.

(13 marks)



5. Estimate the area of the goldfish body in  $\text{cm}^2$ . You can use any approved method. Ignore the fins which are shaded.

(15 marks)



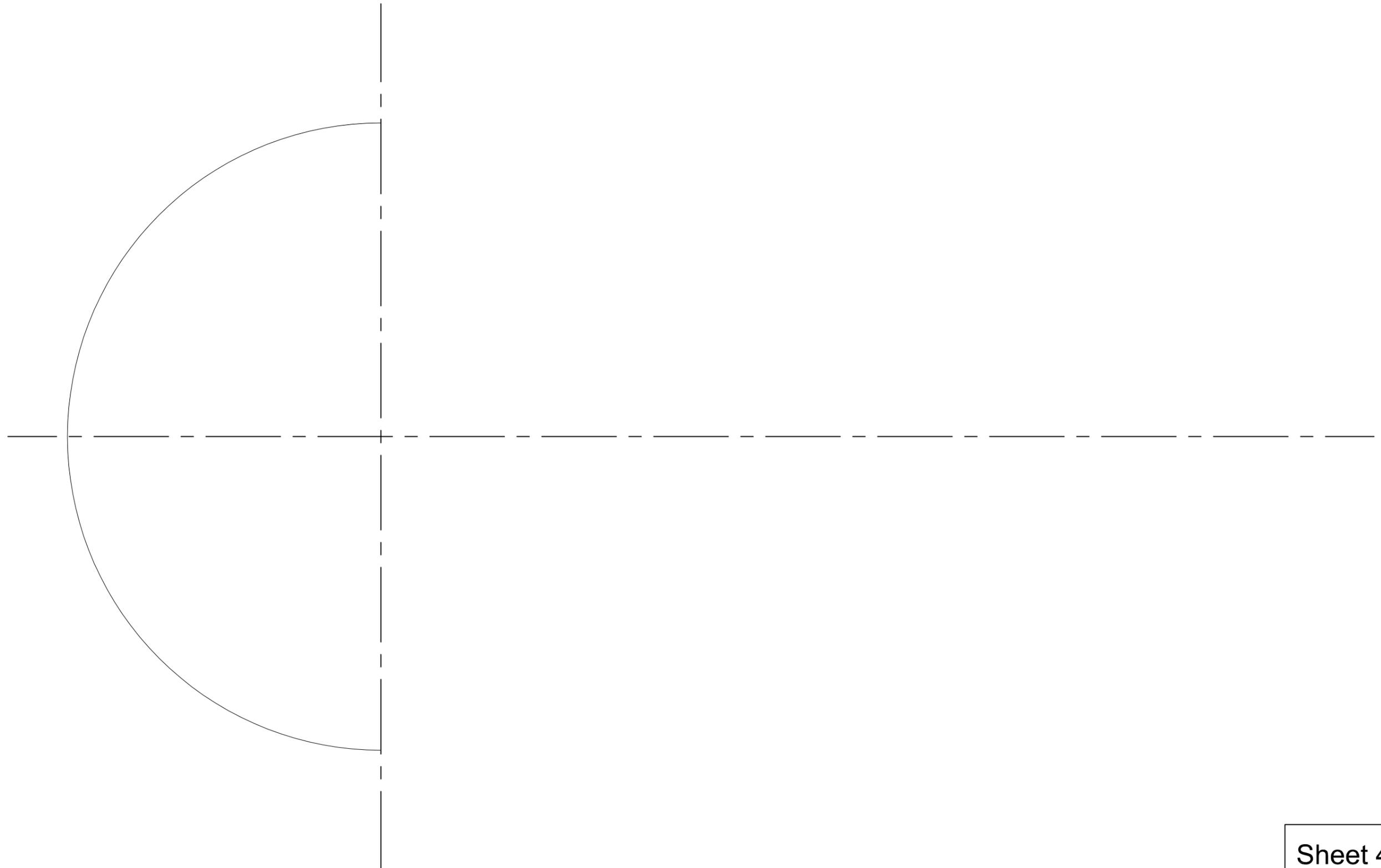
Area = \_\_\_\_\_  $\text{cm}^2$

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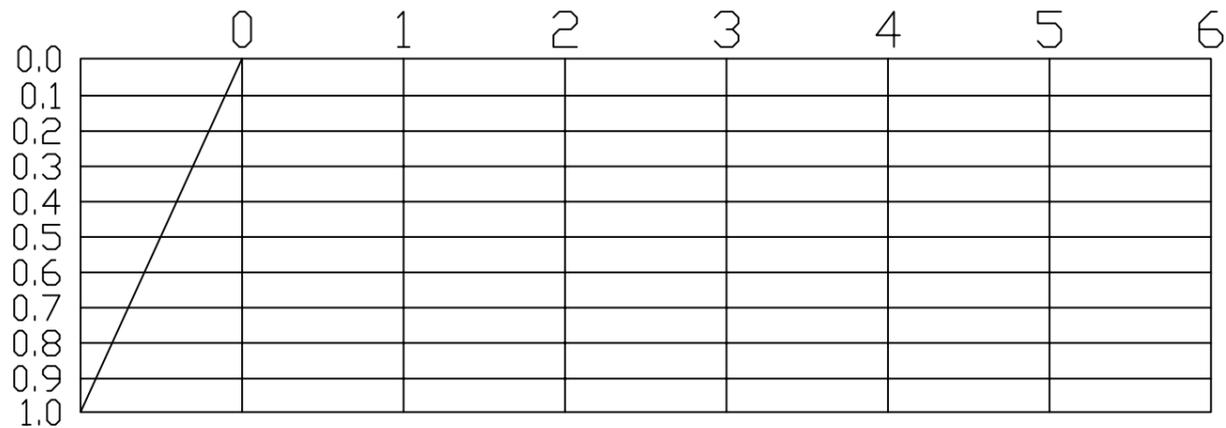
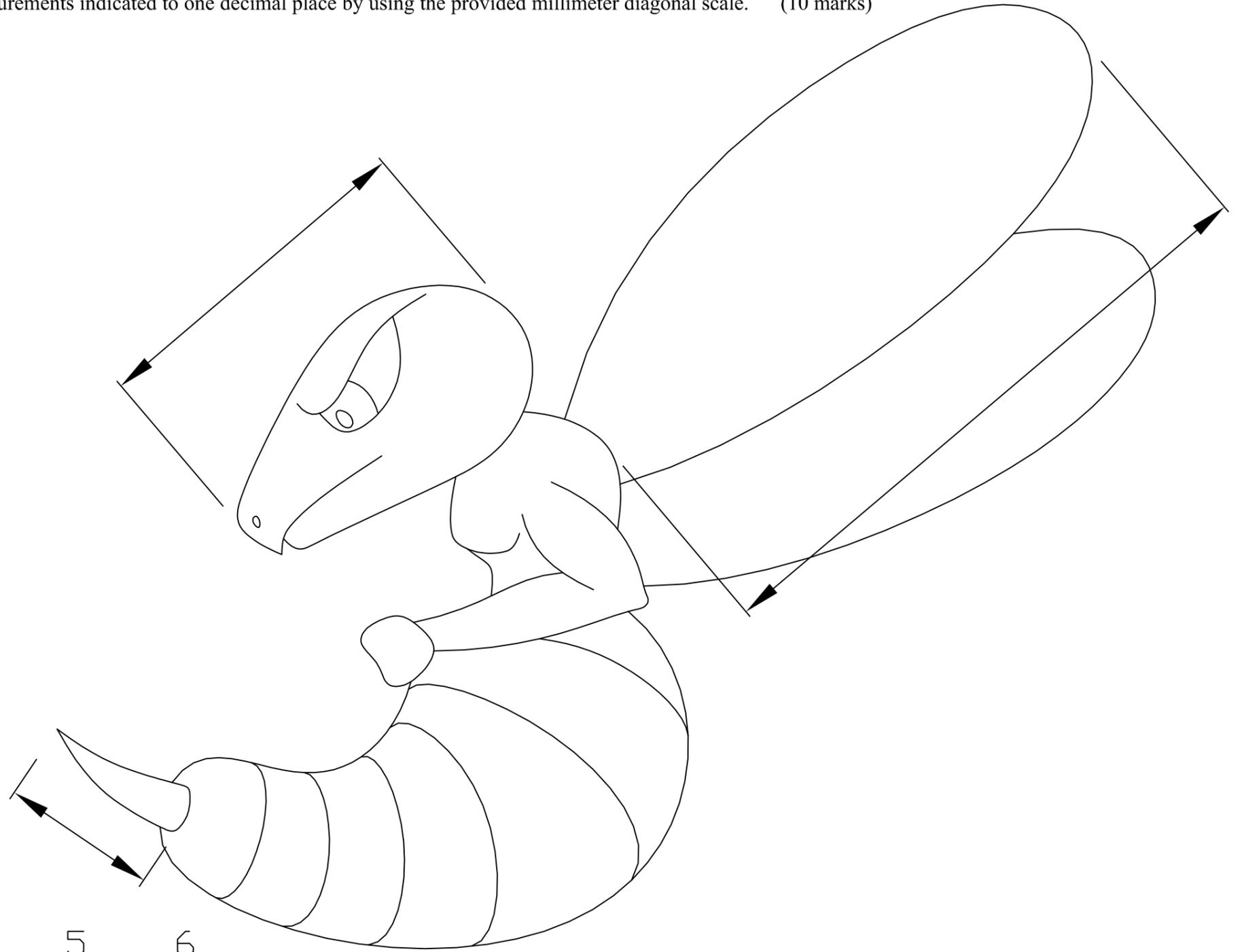


6. On the given center lines draw  $1\frac{1}{2}$  revolutions of a round left hand helical spring of PCD160mm, pitch 140mm and spring section radius 8mm.

(15 marks)



7. An unusual wasp is being examined under the microscope. List the measurements indicated to one decimal place by using the provided millimeter diagonal scale. (10 marks)



Head = \_\_\_\_ mm

Wing = \_\_\_\_ mm

Stinger = \_\_\_\_ mm

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