

Name \_\_\_\_\_

Date \_\_\_\_\_

## Pre-Algebra Acc (25 pts)

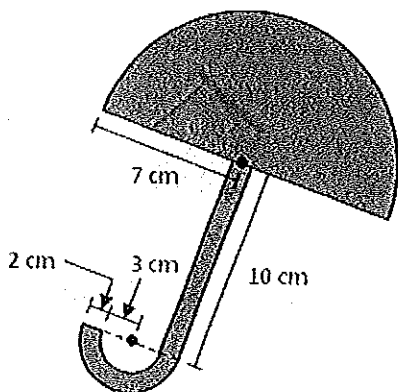
### Take Home

You will be taking this portion of the test at home.

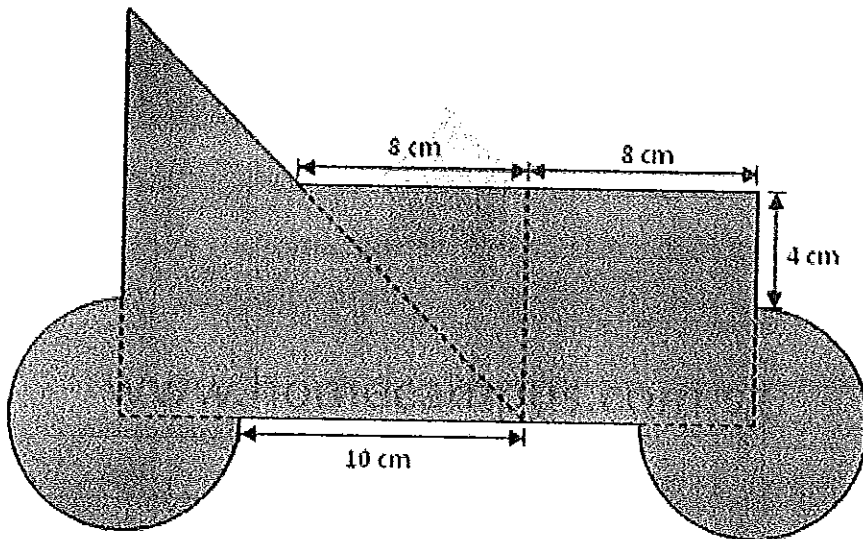
It is due on Wednesday. You can use your reference sheet and calculator. You may not get help from anyone. Be sure your work is clearly marked and easy to understand.

Remember: Academic Integrity!!!

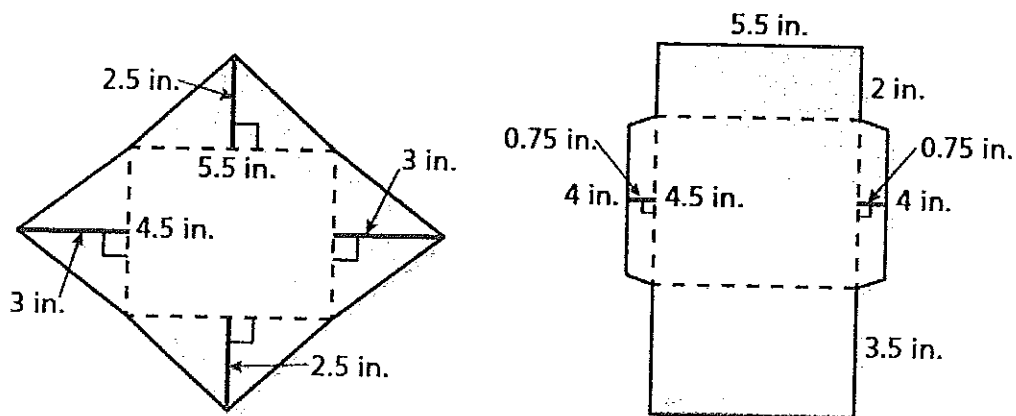
- 1) Maddie joined 3 semicircles and a rectangle to form the shape of an umbrella. Find the area of the shaded umbrella.



2) Find the area of the figure below formed by 2 identical three-quarter circles, 2 isosceles right-angled triangles and a square.

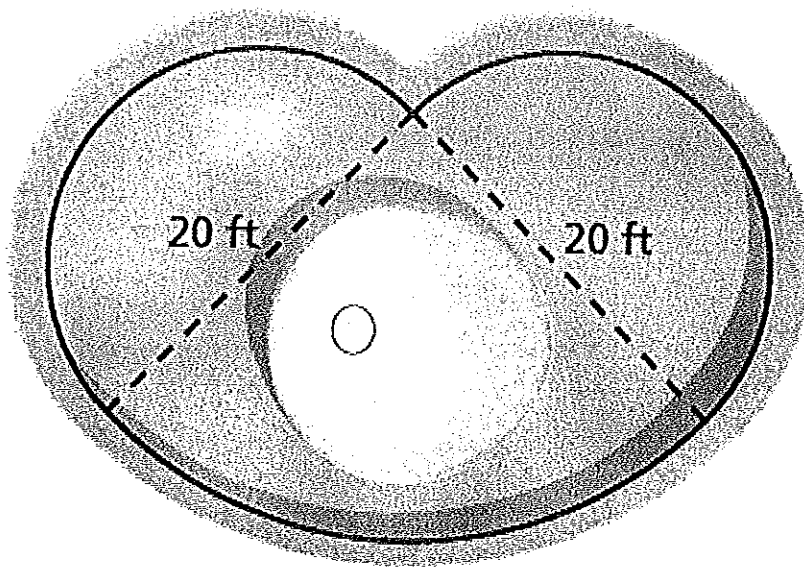


3) You are comparing two different envelope designs.

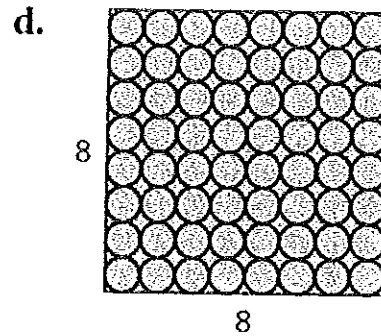
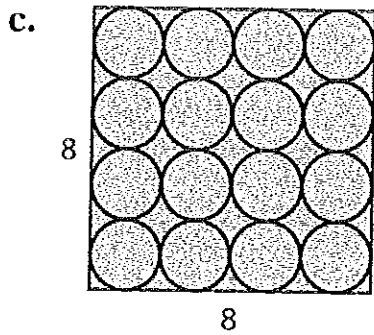
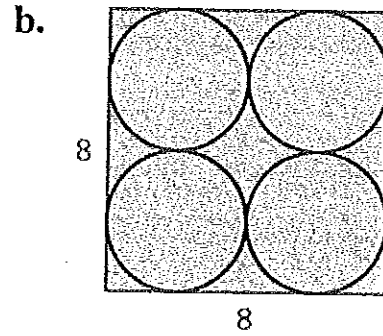
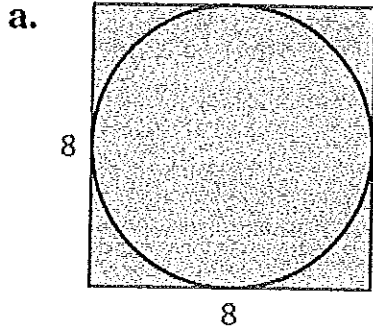


- Which design has the greater area?
- You make 500 envelopes using the design with the greater area. Using the same amount of paper, how many more envelopes can you make with the other design?

4) The fountain below is made up of two semicircles and a quarter circle. Find the perimeter and area of the fountain.



5) Which pattern fills more of the square with circles? Explain your answer.



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