

Math 123
Fall 2023
Dr. Lily Yen

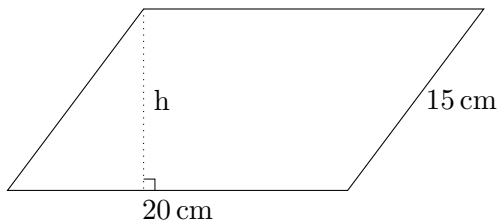
Assignment 3

Show all your work

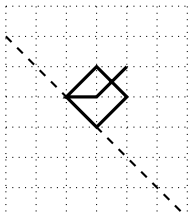
Name: _____
Number: _____
Signature: _____
Score: ____/18

Problem 1: Set up a table for convex polygons' angle sums beginning with a triangle, followed by a quadrilateral, a pentagon, and so on. From your table, derive a formula for the measure of an interior angle in a regular n -sided polygon.

Problem 2: Given that the area of the parallelogram shown is 240 cm^2 with a slant side of 15 cm, find the height, h , of the parallelogram. Include units. Score: ____/3



Problem 3: Draw a reflection of the given figure along the given line. Score: ____/2



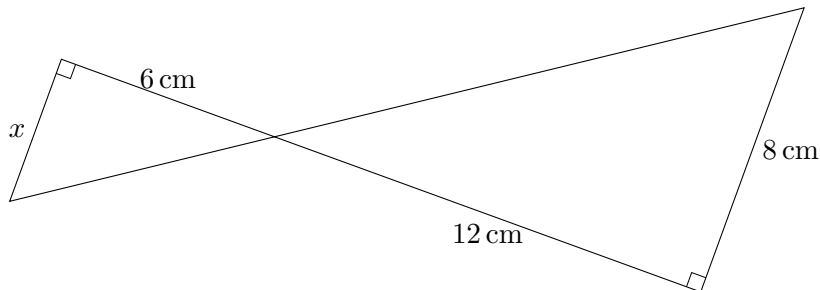
Score: ____/2

/7

Problem 4: Which of the two shapes cover more area? A square of side length 4 or a circle of diameter 4. Show your work to support your claim.

Score: /3

Problem 5: Find $x =$. Name the triangles and provide reasons for your claim.



Score: /3

Problem 6: Take two rectangular prisms with the same volume of 12 cm^3 . Suppose that the dimensions of both prisms are integer centimetre lengths.

- a. Draw two examples of such rectangular prisms with different surface areas. Clear label the dimensions of each.

Score: /2

- b. Find two such rectangular prisms whose surface areas differ as much as possible.

Score: /3