

Calculating Areas of Common Geometric Figures

Program Analysis Sheet

Name _____

Calculate the area for each figure on the activity sheets, and write the area below.

A 28

B 24

C 35

D 39

E 28

F 25

G 27

H 26

Open Ozobot Blockly and use **Share Code rbr849** to open the program. Place Ozobot on the line of shape A. After walking around the shape multiple times, it will turn onto the red line and stop. Watch the top LED. The green blinks are the number in the tens place and the blue blinks indicate the number in the ones place. Check the number Ozobot indicated with your calculation. Place Ozobot on shape B and check your answer. Continue placing Ozobot on shapes and check the remainder of your answers being sure to go in alphabetical order.

Analyze the Ozobot Blockly program by answering the following questions.

1. Can you tell by looking at the program, how many geometric shapes are on the grid pages? If so, how? Yes, the first loop "count with j from 1 to 8 by 1" tells me the loop will run 8 times. Also, looking at the function "Display Area" has 8 conditionals.
2. How many functions are used in the program? What does each function program Ozobot to do? There are three functions in the program. First, "Display Area" give the area of each geometric figure. Second, "Blink Tens Place" programs the bot to blink a certain number of times according to the number in the ten's place of the answer. Third, "Blink Ones Place" tells the bot to blink a certain number of times depending on the number in the one's place of the area for each figure.
3. Refactor the program so Ozobot says the area of each geometric figure instead of blinking the area with the top LED. Test your program. Record the Share Code for your program here: <https://ozo.bot/b/mzuaq9> or Share Code mzuaq9