Part 1: The functions below describes the area of a certain shapes.

Circle A(radius) = π•r²   *Square   A(side length) = s²*   *Equilateral Triangle   A(side length) =* $\frac{\sqrt{3}}{4}s^2$

1. The circle function was used to find area. Describe the meaning of the input, output, and units for
    A(3cm) = 28.26 cm²

2. Describe the domain and range of the circle function.

    Domain: A. positive integers   B. all integers   C. positive real numbers   D. all real numbers

    Range: A. positive integers   B. all integers   C. positive real numbers   D. all real numbers

3. Find the area of a circle of radius 5 ft.

4. Find the area of a square with side length of 12 cm.

5. Find the area of an equilateral triangle with side length of 3 meters.

6. How much greater is the area of a square than the area of an equilateral triangle if both have side length of 4m?

7. Which of the following have a greater area than a circle of radius 5cm? Select ALL that are true.

    A. circle of radius 4cm
    B. circle of radius 1 meter
    C. square of side length 9cm
    D. equilateral triangle of side length 12cm
    E. square of side length 0.1 meters
    F. polygon with area 75cm²

The area of a regular polygon of side length 3 inches is shown in the table:

Number of sides (cm)	3	4	5	X
Area (cm²)	3.9	9	15.5	23.4

7. Which of the following numbers can be placed in the location marked with the X so that the table of values satisfies the definition of a function? Select ALL that apply.

        A. 4   B. 5   C. 6   D. 7

8. Describe the domain of the function in the table.

        A. positive integers   B. all integers   C. positive real numbers   D. all real numbers

9. Describe the range of the function in the table.
    Note: the formula is A = (1/4)ns² cot(π/n) where n = number of sides and s = side length.

        A. positive integers   B. all integers   C. positive real numbers   D. all real numbers