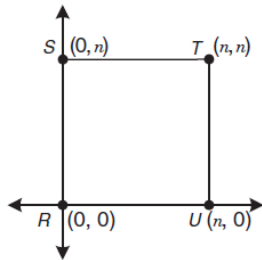


1. G. B4 A

24 The polygon $RSTU$ is shown below.

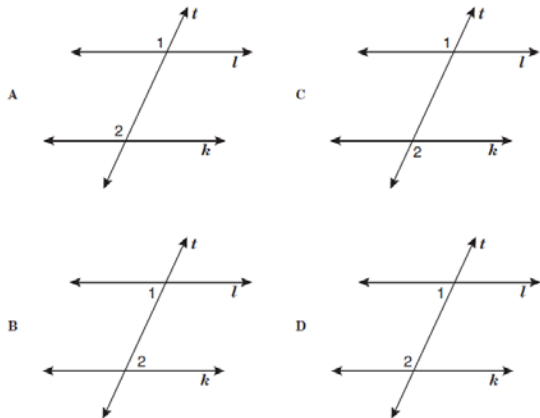


Which expression represents the area of this polygon?

- F $4n^2$
- G $4n$
- H $2n$
- J n^2

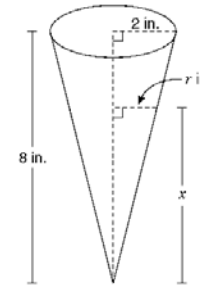
2. G. B4 A

55 Mitch drew lines l , k , and t . Lines l and k were parallel to each other. Mitch measured 2 alternate interior angles. He labeled the angles 1 and 2. Which of the following shows angles 1 and 2 correctly labeled?



3. G. C1 A

38 The figure below shows a conical cup containing water. The water depth can be represented by x , and the area of the water surface can be represented by A . As the water depth changes, the area of the water surface changes, as shown in the table below.

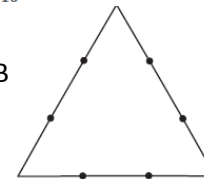


Water Depth (inches)	Area of Water Surface (square inches)
1	$\frac{\pi}{16}$
2	$\frac{\pi}{4}$
3	$\frac{9\pi}{16}$
4	π
8	4π

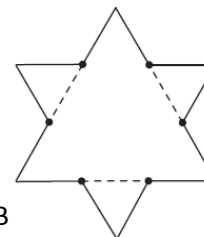
Which equation best represents the relationship between the area of the water surface and the water depth?

- F $A = \frac{\pi(2x - 1)^2}{16} \text{ in.}^2$
- G $A = \frac{\pi x}{2} \text{ in.}^2$
- H $A = \frac{\pi x^2}{16} \text{ in.}^2$
- J $A = \frac{\pi x}{16} \text{ in.}^2$

4. G. C1 B



The student then replaces the middle segments with 2 equal segments to form the sides of smaller equilateral triangles.



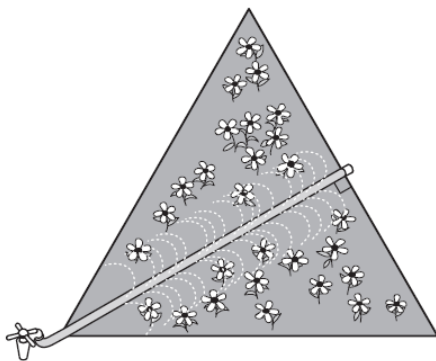
32 A student begins drawing a fractal by dividing each side of an equilateral triangle into 3 segments.

If the student repeats this process on the 12 sides of the second figure, how many sides will the next figure have?

- F 24
- G 36
- H 48
- J 60

5. G. C1 B

- 15 Mr. Schultz has a garden shaped like an equilateral triangle that measures 11 feet on each side. He has placed a watering hose that extends from the faucet located at a vertex to the opposite side, as shown below.

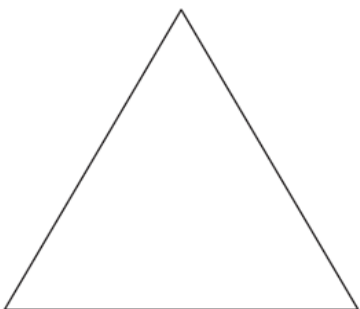


Which is closest to the length of the hose in the garden?

- A 7.8 ft
- B 9.5 ft
- C 6.4 ft
- D 5.5 ft

6. G. C1 C

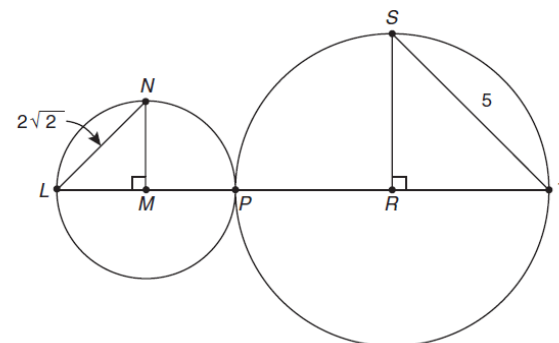
- 46 If the perimeter of the equilateral triangle shown below is 37 centimeters, what is the approximate area of the triangle?



- F 132 cm^2
- G 54 cm^2
- H 33 cm^2
- J 66 cm^2

7. G. C1 C

- 22 In the figure below, circle M and circle R intersect at point P .

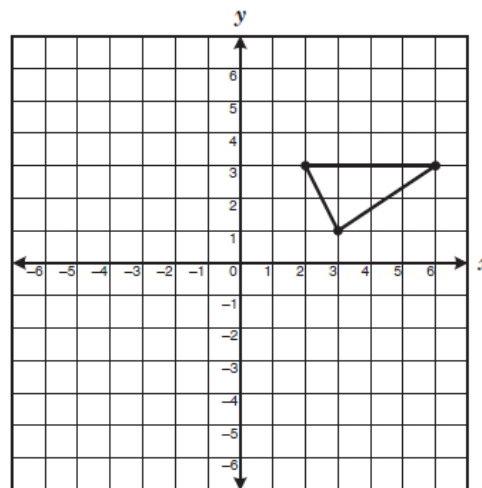


Which is closest to the length of \overline{LT} ?

- F 14 units
- G 11 units
- H 18 units
- J 16 units

8. G. E3 A

- 11 Look at the triangle graphed on the coordinate grid below.



Which coordinates are the vertices of a triangle congruent to this figure?

- A $(3, -1), (2, -3), (6, -3)$
- B $(-3, 3), (1, 1), (-2, 1)$
- C $(-4, -1), (0, -1), (-4, -3)$
- D $(3, 1), (2, 3), (-3, 6)$