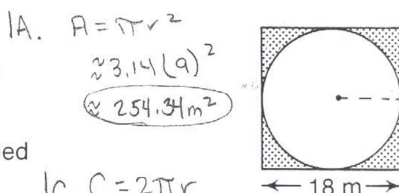


# Just Plane Geometry

THERE IS ONE KIND OF PERSON WHO LOVES PLANE GEOMETRY. TO FIND OUT WHO:

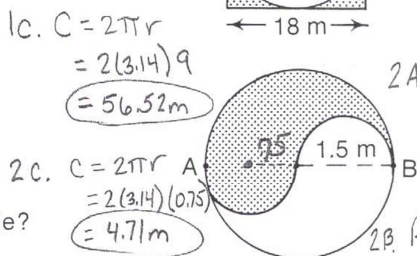
Solve each problem (use  $\pi \approx 3.14$ ) and find your answers at the bottom of the page. Shade in the letter above each correct answer. When you finish, you will know who loves plane geometry!

- ① A What is the area of the inscribed circle?  
 B What is the area of the shaded region?  
 C What is the circumference of the inscribed circle?



1B.  $A_{\square} - A_{\circ} = A_{\text{shaded}}$   
 $18^2 - 254.34 = A_s$   
 $324 - 254.34 = A_s$   
 $69.66 \text{ m}^2 = A_s$

- ② A What is the area of the large circle?  
 B What is the area of the shaded region?  
 C What is the distance from A to B along the S-shaped curve?  
 D What is the circumference of the large circle?



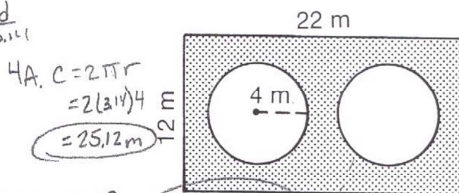
2A.  $A = \pi r^2$   
 $= 3.14(1.5)^2$   
 $= 3.14(2.25)$   
 $= 7.065 \text{ m}^2$

2B.  $A_{\text{shaded}} = \frac{1}{2} \pi r^2$   
 $= \frac{1}{2} (7.065)$   
 $= 3.5325 \text{ m}^2$

- ③ If a circle has a circumference of 8.4 cm, what is the diameter of the circle to the nearest 0.1 cm?

2D.  $C = \pi d$   
 $8.4 = 3.14(d)$   
 $d = 2.7 \text{ cm}$

- ④ A What is the circumference of each small circle?  
 B What is the area of each small circle?  
 C What is the area of the shaded region?

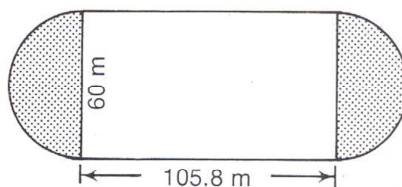


4B.  $A = \pi r^2$   
 $= 3.14(4)$   
 $= 3.14(16)$   
 $= 50.24 \text{ m}^2$

- ⑤ If a circle has a circumference of 14.5 cm, what is the radius of the circle to the nearest 0.1 cm?

4C.  $A_{\square} - 2A_{\circ} = A_{\text{shaded region}}$   
 $(l \cdot w) - 2[\pi r^2] = 12(22) - 2[50.24] = 264 - 100.48 = 163.52 \text{ m}^2$

- ⑥ A What is the distance around this track?  
 B What is the area of the shaded region?  
 C What is the area of the complete region inside the track?



O	L	D	F	L	A	G	S	H	A	V	E	4	8	S	T	A	R	S
56.52 m	9174 m <sup>2</sup>	400 m	4.71 m	254.34 m <sup>2</sup>	5426 m <sup>2</sup>	50.24 m <sup>2</sup>	2.3 cm	3.5325 m <sup>2</sup>	2.7 cm	2.5 cm	163.52 m <sup>2</sup>	25.12 m	98.24 m <sup>2</sup>	7.065 m <sup>2</sup>	2826 m <sup>2</sup>	69.66 m <sup>2</sup>	440 m	9.42 m