

Suppose you have entered into a bicycle race that is 3 miles in length. Use your knowledge of the unit circle to calculate the number of rotations each bicycle wheel must turn to travel the length of the bike race?



Photo by: Ethan Lofton "Iron Horse Bicycle Race Durango"

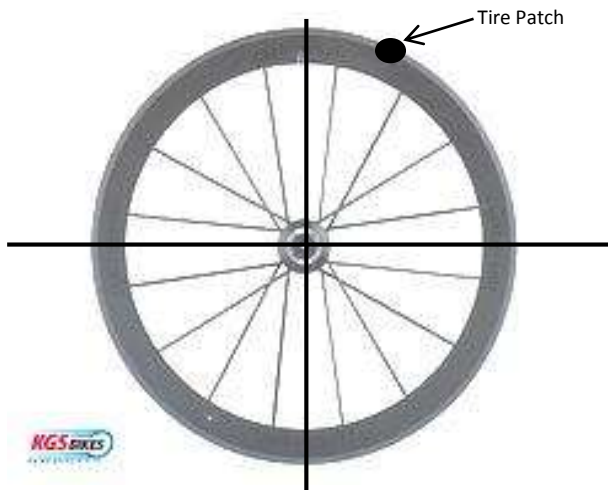


Photo by: Kevin G Saunders "Lightweight Obermayer Carbon Fiber Bicycle Wheel"

Suppose you get a flat tire after traveling 2 miles of the bike race. You need to patch the tire. At what degree and radian measure does the patch need to be placed?

The wheel has a radius of 26 inches. Use your knowledge of the unit circle to find both the radian measure as well as the degree of where the tire patch needs to be placed.

(Hint: What will you need to use to find the angle measure?)