

April 9th

**A man is 2 metres tall and walks around the earth.
How many metres further does the top of his head
travel than the bottoms of his feet?**

This problem looks like you need to know the diameter of the Earth.....
but you don't!

If the diameter of the Earth is d

Then the circumference (how far his feet travel) = πd

The diameter for the circle his head travels = $d + 4$

Therefore his head travels $\pi (d + 4) = \pi d + 4\pi$

So the difference in distance travelled = **4π metres $\approx 12.57\text{m}$**

(You might like to convince yourself that this will always be true for a 2m tall man, regardless of the size of the circle he walks in)