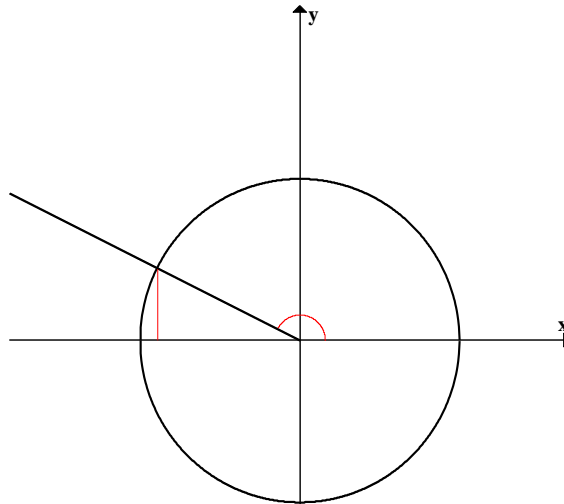


1) For the ray shown below, draw the standard angle and reference triangle.



2) Four identical pipes, each with a radius of 10 inches, are tied tightly together with a rope. Find the exact length of the rope.

Straight parts:  $20 \cdot 4 = 80$

Curved parts:  $2\pi \cdot 10$  (One full circle, albeit split into 4 parts)

Total length:  $80 + 20\pi$

3) Three identical pipes, each with a radius of 10 inches, are tied tightly together with a rope. Find the exact length of the rope.

Straight parts:  $20 \cdot 3 = 60$

Curved parts:  $2\pi \cdot 10$  (One full circle, albeit split into 3 parts)

Total length:  $60 + 20\pi$

