



$$\text{ai, } r = 2\pi$$

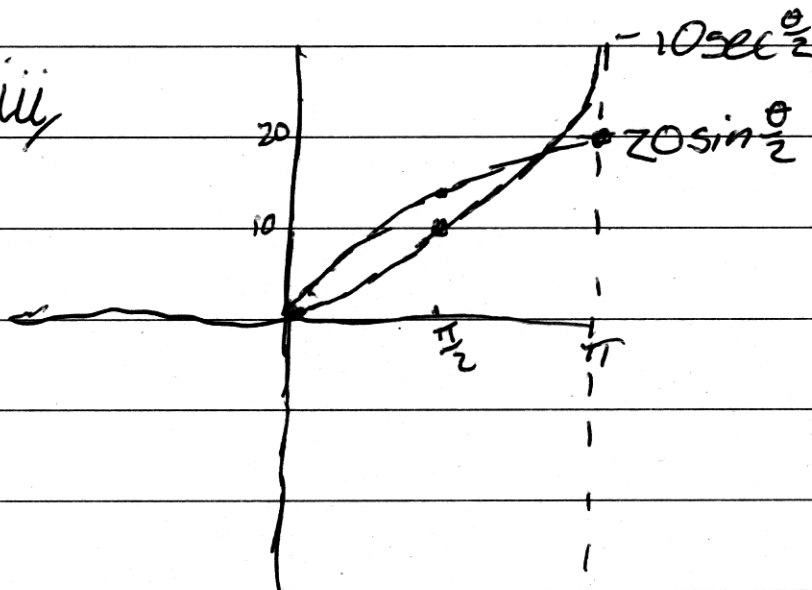
$$2\pi = 2\pi$$

$$10\pi$$

$$r = 10 \sec \frac{\theta}{2}$$

$$\text{aii, } r = 20 \sin \frac{\theta}{2}$$

aiii



$$\text{bi, } P = \left[(x+8)(b^2 + (x-8)^2) \right]^2 + \left[(x-8)(b^2 + (x+8)^2) \right]^2$$
$$= 2(x+8)(2b^2 + (x^2 + 64))$$