



$$OB=1$$

$$A(ADB) = a(ABC) - a(CDB)$$

$$= a(ABC) - (a(ODB) - a(ODC))$$

$$a(ABC) = \frac{1}{2} AB \cdot BC = \frac{1}{2} \cdot \sin \theta$$

$$a(ODB) = \cancel{\frac{1}{2}} \frac{\phi}{2}$$

$$a(ODC) = \frac{1}{2} \cdot OD \cdot OC \cdot \sin \phi = \frac{1}{2} \cdot (1 - \sin \theta) \cdot \sin \phi$$

$$\frac{1 - \sin \phi}{1 - \cos \phi} = \frac{\sin \theta}{\cos \theta}$$

$$\cos \theta - \sin \phi \cos \theta = \sin \theta - \cos \phi \sin \theta$$

$$\cos \phi \sin \theta - \sin \phi \cos \theta = \sin \theta - \cos \theta$$

$$D(x, y)$$

$$\frac{y}{x} = \tan \theta$$

$$(x-1)^2 + (y-1)^2 = 1$$

$$x^2 - 2x + 1 + x^2(\tan \theta)^2 - 2x \tan \theta + 1 = 1$$

$$(1 + (\tan \theta)^2) x^2 - 2x(1 + \tan \theta) + 1 = 0$$