Angle of Repose.

Angle of repose is defined as the angle of the inclined plane with horizontal such that a body placed on it is just begins to slide.

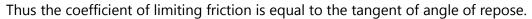
By definition α is called the angle of repose.

In limiting condition $F = mg \sin \alpha$

and
$$R = mg \cos \alpha$$

So
$$\frac{F}{R} = \tan \alpha$$

$$\therefore \frac{F}{R} = \mu = \tan \theta = \tan \alpha \text{ [As we know } \frac{F}{R} = \mu = \tan \theta \text{]}$$



As well as $\alpha = \theta$ *i.e.* angle of repose = angle of friction.

