



$$\begin{aligned} \tan(3^\circ) &= \text{altitude} / \text{distance} \\ \text{distance} &= 1000 \text{ ft} / .0524 \\ \text{distance} &= 19000 \text{ ft, roughly 3 nm} \end{aligned}$$

3 Legs, each 1 nm long

$$\text{nm/hr} * 1\text{hr}/60\text{min} * 1/\text{legdist} * \text{descentdist} = \text{ft/min descent rate}$$

DownWind: 85 knots, 1 nm

$$85 * 1/60 * 1/1\text{nm} * 333 \text{ ft} = 471 \text{ ft/min}$$

Base: 75 knots, 1 nm

$$75 * 1/60 * 1/1\text{nm} * 333 = 416 \text{ ft/min}$$

Final: 65 knots, 1 nm

$$65 * 1/60 * 1/1\text{nm} * 333 = 360 \text{ ft/min}$$

The problem with this is that it takes you outside of glide distance to the airport.  
The 172's best-glide glide-angle is 7°.