# CG - Polar Coordinates

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| **How can you convert from polar to Cartesian and vice versa?** |  |
| **What symmetries are there under polar coordinates?** | 1. If r is a function of cos only - symmetrical about initial line. 2. If r is a function of sin only - symmetrical about θ = π/2. |
| **How do tangents work under polar coordinates?** | If r → 0 as θ → α, the line θ = α is a tangent to the curve at this pole.  Example: |
| **What 2 things should you note when integrating polar curves?** | 1. You may end up with negative areas. 2. You can use symmetries to help find areas |