

**STEP/Curve Sketching: Exercises - Overview (18/7/23)****Q1**Sketch the graph of  $\sqrt{x^2 - 2x + 1}$  for  $0 \leq x \leq 2$ **Q2**Sketch (i)  $y = \sqrt{\sin x}$  and (ii)  $y = (\sin x)^{\frac{1}{n}}$  for large positive integer  $n$  (for  $0 \leq x \leq \pi$  in both cases).**Q3**

Sketch the following:

(i)  $y = \ln(1 - x)$

(ii)  $y = \ln(x^2 - 1)$

(iii)  $y = \ln|x^2 - 1|$

**Q4**Sketch  $x^n \pm y^n = 1$  for large  $n$ **Q5**Sketch  $y = \frac{x}{\sqrt{x^2 + p}}$ , where  $p$  is a positive constant, for  $x \geq 0$

**Q6**Sketch  $y = \frac{e^x}{x}$