Together:

Graph $f(x) = \dfrac{x^2 - 4x + 4}{x - 1}$

You try:

1. Sketch $= \dfrac{x^2 + 2x + 1}{x - 3}$. Include intercepts, asymptotes and define end behaviour using limits.

2. Sketch $y = \dfrac{x^4 + 1}{x^2}$. Include intercepts, asymptotes and define end behaviour using limits. **Include turning points as well.**

3. Write the equation of a function with the given features: a vertical asymptote at x=2, a horizontal asymptote at y = 0, no x-int and a y-int of -2.

4. Write the equation of a function with the given features: a vertical asymptote at x=0, a oblique asymptote at y = 3x + 1, and no x or y-intercept.