

Answers:

1. The x-axis represents flow rate (Q), and the y-axis represents head (H).
2. The up curves represent system demand curves, and the down curves represent pump performance curves. The up curves could also represent NPSH required and the down ones NPSH.
3. The two intersection points represent possible operating points. If the curves are instead NPSH and NPSH required, the intersection points represent the cavitation point of the pump.
4. We should combine three of the dark blue pump in series (head adds, flow rate stays the same).
5. We should combine two of the orange pump in parallel (flow adds, head stays the same).