

Implicit Differentiation - HW

NAME _____ PER _____ DATE _____

In exercises 17–22, find an equation of the tangent line at the given point. If you have a CAS that will graph implicit curves, sketch the curve and the tangent line.

17. $x^2 - 4y^3 = 0$ at $(2, 1)$

18. $x^2y^2 = 4x$ at $(1, 2)$

19. $x^2y^2 = 3y + 1$ at $(2, 1)$

20. $x^3y^2 = -2xy - 3$ at $(-1, -3)$

21. $x^4 = 4(x^2 - y^2)$ at $(1, \frac{\sqrt{3}}{2})$

22. $x^4 = 8(x^2 - y^2)$ at $(2, -\sqrt{2})$