

p. 845 (10.6)

Sketch the appropriate traces and then sketch and identify the surfaces.

7. $x^2 + \frac{y^2}{9} + \frac{z^2}{4} = 1$

8. $\frac{x^2}{4} + \frac{y^2}{4} + \frac{z^2}{9} = 1$

9. $z = 4x^2 + 4y^2$

10. $z = x^2 + 4y^2$

11. $z^2 = 4x^2 + y^2$

12. $z^2 = \frac{x^2}{4} + \frac{y^2}{9}$

13. $z = x^2 - y^2$

14. $z = y^2 - x^2$

15. $x^2 - y^2 + z^2 = 1$

16. $x^2 + \frac{y^2}{4} - z^2 = 1$

17. $x^2 - \frac{y^2}{9} - z^2 = 1$

18. $x^2 - y^2 - \frac{z^2}{4} = 1$

29. $y = x^2 + z^2$

31. $x^2 + 4y^2 + 16z^2 = 16$

33. $4x^2 - y^2 - z = 0$

35. $4x^2 + y^2 - z^2 = 4$

37. $-4x^2 + y^2 - z^2 = 4$