

21. $x = 3$

22. $x = 7.5$

23. $x = -1$

24. $x = -\frac{43}{15}$

25. $x = 4$

26. $x = 0.25$

27. $x = \pm 8$

28. $x = 4$

29. no real solution

30. $x = 81$

31. $x = 3$

32. $x = 1$

33. $x = 5$

34. $x = 1$ and $x = 2$

35. Only one side of the equation was cubed;

$$\begin{aligned}\sqrt[3]{3x - 8} &= 4 \\ (\sqrt[3]{3x - 8})^3 &= 4^3 \\ 3x - 8 &= 64 \\ x &= 24\end{aligned}$$

36. When raising each side to an exponent, the 8 was not included;

$$\begin{aligned}8x^{3/2} &= 1000 \\ (8x^{3/2})^{2/3} &= 1000^{2/3} \\ 4x &= 1000 \\ x &= 25\end{aligned}$$