Solve. If an equation has no solution, say so.

19. $3^x = \frac{1}{27}$

20. $5^x = \sqrt{125}$

21. $8^{2+x} = 2$

22. $4^{1-x} = 8$

23. $27^{2x-1} = 3$

24. $49^{x-2} = 7\sqrt{7}$

25. $4^{2x+5} = 16^{x+1}$

26. $3^{-(x+5)} = 9^{4x}$

27. $25^{2x} = 5^{x+6}$

28. $6^{x+1} = 36^{x-1}$

29. $10^{x-1} = 100^{4-x}$

B **30.** $3^{2x} - 6 \cdot 3^x + 9 = 0$

31. $4^{2x} - 63 \cdot 4^x - 64 = 0$

32. $3^{2x} - 10 \cdot 3^x + 9 = 0$