



Assignment questions based upon online class

Maths homework (X)

14. $6\left(\frac{x-3}{2x+1}\right) + 1 = 5\sqrt{\frac{x-3}{2x+1}} ; x \neq \frac{-1}{2}$
15. $6\left(\frac{2x-3}{3x+1}\right) - 5\sqrt{\frac{2x-3}{3x+1}} + 120 ; x \neq \frac{-1}{2}$
16. $\frac{x-2}{x+2} - 4\sqrt{\frac{x-2}{x+2}} + 3 = 0 ; x \neq -2$
17. $\sqrt{\frac{x}{3}} + 24\sqrt{\frac{3}{x}} - 10 = 0 ; x \neq 0$
18. $\sqrt{\frac{x}{x-3}} + \sqrt{\frac{x-3}{x}} = \frac{5}{2} ; x \neq 0, 3$
19. $6\sqrt{\frac{x}{x+4}} - 2\sqrt{\frac{x+4}{x}} = 11 ; x \neq 0, -4$
20. $\sqrt{\frac{3x-5}{2x+7}} + \sqrt{\frac{2x+7}{3x-5}} = 2$
21. $x + \sqrt{x+6} = 14$
22. $2\sqrt{2x+1} - 2x = 1$
23. $\sqrt{3x+7} + \sqrt{x+1} = 2$
24. $\sqrt{2x+3} = 6 - \sqrt{4x-3}$
25. $\sqrt{2x+5} - \sqrt{x+3} = 2$
26. $\sqrt{4x-5} + \sqrt{2x-9} = 4$
27. $\sqrt{x-5} - \sqrt{x-8} = \sqrt{2x-17}$
28. $\sqrt{x^2-16} - \sqrt{x^2-5x+4} = x-4$
29. $3\left(x^2 + \frac{1}{x^2}\right) - 16\left(x + \frac{1}{x}\right) + 26 = 0$
30. $2\left(x^2 + \frac{1}{x^2}\right) - 9\left(x + \frac{1}{x}\right) + 8 = 0$
31. $\left(x^2 + \frac{1}{x^2}\right) - 3\left(x - \frac{1}{x}\right) - 2 = 0$
32. $4\left(x^2 + \frac{1}{x^2}\right) + 8\left(x + \frac{1}{x}\right) + 3 = 0$
33. $3\left(x - \frac{1}{x}\right)^2 - 16\left(x + \frac{1}{x}\right) + 32 = 0$
34. $2\left(x^2 + \frac{1}{x^2}\right) - \left(x + \frac{1}{x}\right) - 11 = 0$
35. $x^{2/3} + x^{1/3} = 2$
36. $4^x - 5 \cdot 2^x + 4 = 0$
37. $5^{1+x} + 5^{1-x} = 26$
38. $2^{x+1} + 4^x = 4 - 2^x$
39. $5^{4x} - 3 \cdot 5^{2x+1} = 250$
40. $\sqrt{2^x} + \frac{1}{\sqrt{2^x}} = 2$
41. $4^x - 3 \cdot 2^{x+3} + 128 = 0$
42. $3^{4x+1} - 2 \cdot 3^{2x+2} = 81$
43. $3 \cdot 4^{x+1} - 13 \cdot 2^x = 140$
44. $x(x+1)(x+3)(x+4) = 180$
45. $(x-1)(x-2)(x-3)(x-4) = 24$
46. $(x-1)(x-2)(3x-2)(3x+1) = 21$
47. $(x+1)(x+2)(x+3)(x+4) = 120$
48. $\left(\frac{2x-1}{x-1}\right)^4 - 10\left(\frac{2x-1}{x-1}\right)^2 + 9 = 0 ; x \neq 1$
49. $4\left(\frac{x}{x+1}\right)^4 - 25\left(\frac{x}{x+1}\right)^2 + 36 = 0 ; x \neq -1$
50. $\left(\frac{3x-1}{2x+3}\right)^4 - 5\left(\frac{3x-1}{2x+3}\right)^2 + 4 = 0 ; x \neq \frac{-3}{2}$