M3H U3 Day 7 HW Solving Rational and Radical Equations

I. Solve algebraically – show all your work.

11) $4b^{-\frac{3}{4}} + 10 = \dfrac{21}{2}$

21) $\sqrt{4n + 8} = n + 3$

13) $-54 = 10 - (m - 10)^{\frac{3}{2}}$

23) $4 + \sqrt{-3m + 10} = m$

15) $9 + 5\sqrt[3]{2m} = 29$

25) $n - 7 = \sqrt{3n - 21}$

17) $-646 = -3(65 - n)^{\frac{3}{2}} + 2$

27) $-3 + \sqrt{m + 59} = m$

KEY:

I.

11) $4b^{-\frac{3}{4}} + 10 = \frac{21}{2}$

{16}

21) $\sqrt{4n+8} = n+3$

{−1}

13) $-54 = 10 - (m-10)^{\frac{3}{2}}$

{26}

23) $4 + \sqrt{-3m+10} = m$

No solution.

15) $9 + 5\sqrt[3]{2m} = 29$

{32}

25) $n - 7 = \sqrt{3n-21}$

{10, 7}

17) $-646 = -3(65-n)^{\frac{3}{2}} + 2$

{29}

27) $-3 + \sqrt{m+59} = m$

{5}