Class Examples

① $t^4 = 16$

$\sqrt[4]{(\ )}$ $\sqrt[4]{\ }$

$\sqrt[4]{t^4} = \sqrt[4]{16}$

cancels out the t^4

$t = \sqrt[4]{16}$

$t = 2$

on sharp EL-531VH there is a $x\sqrt{\ }$ in yellow above y^x button

4 2ndF $\sqrt[y]{x}$ 16

② $5t^2 = 125$ you must move 5 first by $\div 5$ (both sides)

$\frac{}{5} \quad \frac{}{5}$

$t^2 = 25$

$t = 5$

③ $\frac{3\sqrt{2x+1}}{3} = \frac{27}{3}$ you must move 3 first ÷ both sides by 3

$\sqrt{2x+1} = 9$ now $(\ )^2$ both sides to get rid of $\sqrt{\ }$ sign

$(\sqrt{2x+1})^2 = (9)^2$

$2x+1^{-1} = 81^{-1}$

$2x = 80$

$x = 40$

④ $4t^2 - 5 = 31$ $^{+5}\ \ ^{+5}$ move 5 first

$\frac{4t^2}{4} = \frac{36}{4}$ divide by 4

$t^2 = 9$ take $\sqrt{\ }$ of both sides

$t = 3$

Homework Questions 21/2/11

Equations with powers (Answer to 2 dec places if needed)

1. $m^5 = 243$

2. $\frac{4x^3}{3} = 36$

3. $x^6 = 4096$

4. $\sqrt{2m} = 10$

5. $3x^2 - 5 = 70$

6. $\sqrt[3]{2x+1} = 5$

7. $3y^3 = 81$

8 $10 = 2\sqrt{\frac{x}{8}}$

9. $2\sqrt{3x-2} = 22$

10. $(4x+2)^2 = 64$

11. $\sqrt{4x+2} = 8$

12. $2x^3 + 5 = 32$

13. $\frac{4}{3}\pi r^3 = 250$

Ans. (1) 3 (2) 3 (3) 4 (4) 50 (5) 5 (6) 62
(7) 3 (8) 200 (9) 41 (10) 3/2 (11) 15.5 (12) 2.38 (13) 3.91