

December 5, 2017

$x^3 + 64$ Sum of Two Cubes
 $a=x$ $b=4$ $(a+b)(a^2-ab+b^2)$

$(x+4)(x^2-4x+16)$

Dec 5-10:04 AM

$x^2 + 4x - 12 = 0$
 $(x+6)(x-2) = 0$

Zero Factor Theorem
 $a \cdot b = 0$

① $x+6=0$
 $x=-6$

② $x-2=0$
 $x=2$

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$\sqrt[2]{y^9} = \sqrt[2]{y^8 \cdot y}$
 $\frac{9}{2} = 4$
 $= y^4 \sqrt{y}$
 $= y^4 \sqrt{y}$

Dec 5-10:11 AM

② Square Root Property
 $\sqrt{(x-7)^2} = \pm 4$
 $x-7 = \pm 2$
 $x = \pm 2 + 7$
 ① $x = 9$
 ② $x = 5$

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#7) $\left(\frac{x-6}{x} = \frac{x+4}{x} + 1\right)^x$
 $x-6 = x+4 + x$
 $x-6 = 2x+4$
 $-10 = x$

Dec 5-10:17 AM

$x^2 + 16x + \text{C}$
 a) $16 \cdot \frac{1}{2} = 8$
 b) $(8)^2 = 64$

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$$\frac{1}{b} \div \frac{1}{b} + \frac{1}{b} - \frac{1}{b}(b) - \frac{1}{b}$$

$$\left[\frac{1}{b} \cdot \frac{b}{1} \right] + \frac{1}{b} - \frac{1}{b}(b) - \frac{1}{b}$$

$$1 + \frac{1}{b} - \frac{1}{b}(b) - \frac{1}{b}$$

$$\left[1 + \frac{1}{b} \right] - 1 - \frac{1}{b}$$

$$\frac{b+1}{b} - 1 - \frac{1}{b}$$

$$\left[\frac{7}{b} - 1 \right] - \frac{1}{b}$$

$$\frac{7-b}{b} - \frac{1}{b}$$

$$\frac{1}{b} - \frac{1}{b} = 0$$

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$h \left(C = 5 + \frac{d}{h} \right)$; for h

$$Ch = 5h + d$$

$$Ch - 5h = d$$

$$h(C-5) = d$$

$$\frac{h(C-5)}{(C-5)} = \frac{d}{(C-5)}$$

$$h = \frac{d}{C-5}$$

Dec 5-10:26 AM

$0.\overline{24}$

let $x = 0.\overline{24}$

$100(x = 0.\overline{24})$ *more 2 times*
LCD: 100

$$100x = 24.\overline{24}$$

$$- x = 0.\overline{24}$$

$$99x = 24$$

$$x = \frac{24}{99}$$

$$x = \frac{8}{33}$$

Dec 5-10:30 AM

$0.\overline{24} = \frac{24}{100}$

$24 = 2 \cdot 2 \cdot 2 \cdot 3$

$100 = 2 \cdot 2 \cdot 5 \cdot 5$

$$\frac{24}{100} = \frac{2 \cdot 2 \cdot 2 \cdot 3}{2 \cdot 2 \cdot 5 \cdot 5} = \frac{6}{25}$$

Dec 5-10:33 AM

$$\frac{(2p^4m^3q^0)^{-4} \cdot 2m^{-1}p^3}{2pq^2}$$

$$\frac{2^4p^{-4}m^3 \cdot 2m^{-1}p^3}{2pq^2}$$

$$\frac{m^2 \cdot 2 \cdot p^3}{2^4p^4m^2 \cdot 2pq^2}$$

$$\frac{2^{\cancel{4}}p^{\cancel{4}}m^{\cancel{2}} \cdot 2p^3}{2^{\cancel{4}}p^{\cancel{4}}m^{\cancel{2}} \cdot 2pq^2}$$

$$\frac{2p^3}{2pq^2}$$

$$\frac{m^3}{16p^2q^2}$$

Dec 5-10:35 AM

$$24s^2 + 22s - 30$$

$$2(12s^2 + 11s - 15)$$

$$2(12s^2 + 40s - 18s - 15)$$

$$2[4s(3s+10) - 3(3s+10)]$$

$$2(3s+10)(4s-3)$$

$p = -180$
 $l = 11$

$$\begin{array}{r|l} + & - \\ 15 & 4 \\ \hline 40 & 18 \end{array} -45$$

Dec 5-10:43 AM

$$\begin{aligned} & (-5, 3) \neq (2, -6) \\ & \text{neg } m = \frac{-6 - 3}{2 + 5} \\ & \quad = \frac{-9}{7} \\ & 3 = -\frac{9}{7}(-5) + b \\ & 3 = \frac{45}{7} + b \\ & \frac{3}{7} - \frac{45}{7} = b \quad \left(y = -\frac{9}{7}x - \frac{24}{7} \right) \\ & \frac{21 - 45}{7} = b \quad 7y = -9x - 24 \\ & \frac{-24}{7} = b \quad 9x + 7y = -24 \end{aligned}$$

Dec 5-10:49 AM