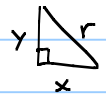
Q&A

Note Title 2/10/2015

9.1:9. If $x^2+y^2=r^2$ r = radius

a. $y=21$, $r=29$, $x=?$



$x^2+21^2=29^2$

$x^2+441=841$

$x^2=400$

$x=\pm 20$ but we are using length $\therefore 20$

b. $x=2$ & $r=4$, $y=?$

$2^2+y^2=4^2$

$y^2=16-4$

$y^2=12$

$y=\sqrt{4}\sqrt{3}=2\sqrt{3}$

c. $x=4.1$, $y=7.1$, $r=?$

$4.1^2+7.1^2=r^2$

$16.81+50.41=r^2$

$67.22=r^2$

$\boxed{8.2}\approx 8.19\approx r$

13a. $\sqrt{h^2}$, if $h<0 \rightarrow -h$

$\sqrt[2]{(-1)^2}=-1$

$\left[(-1)^2\right]^{1/2}=(-1)^1$

b. $\sqrt{(x-3)^2}$

c. $p<0$ & $q<0 \Rightarrow \sqrt{p^2q^2} \rightarrow (p)(q)=pq$

d. $\sqrt{x^3y^2}$, if $x>0$ & $y<0$

$\sqrt{x^3}=x\sqrt{x}$

$\sqrt{y^2}=-y$

$\boxed{-xy\sqrt{x}}$

10. $3x^2+5x-7=x^2+8x+28$

$-x^2-8x-28 \quad -x^2-8x-28$

$2x^2-3x-35=0$

What multiplies to $(2)(-35)=-70$ & adds to -3

$2x^2-10x+7x-35=0$

$2x(x-5)+7(x-5)=0$

$(x-5)(2x+7)=0$

then $x-5=0$ & $2x+7=0$

$x=5$ & $x=-\frac{7}{2}$

10b $12x^2 - 15 = -11x$ $x = -\frac{5}{3}$ & $\frac{3}{4}$

10c $x = \frac{1}{6}$ & 2

9.2 ⊙ S

$C = 2r\pi = d\pi$ → perimeter → length or distance

$A = \pi r^2$ → amt. of paint that would cover.

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