3rd Quarter Warm Up #1

1. $\frac{1}{x+5} \geq 0$

2. $\frac{3x+2}{x-4} > 0$ $3x+2=0$ $x=-\frac{2}{3}$ $x-4=0$ $x=4$

3. $\frac{3}{x-2} > 0$

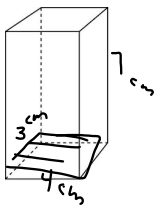
4. $\frac{x-2}{3x+1} \leq 0$ $x-2=0$ $x=2$ bracket $3x+1=0$ $-1\ -1$ $\frac{3x}{3}=\frac{-1}{3}$ $x=-\frac{1}{3}$

$(-\infty, -\frac{2}{3}) \cup (4, \infty)$

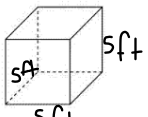
$(-\frac{1}{3}, 2]$

Jan 5-3:17 PM

Calendar Math

Area	Volume	Picture	Name
base = rectangle $B = L \cdot W$ $B = 4 \cdot 3$ $B = 12\,cm^2$	$V = Bh$ $V = L \cdot W \cdot h$ $V = 4 \cdot 3 \cdot 7$ $V = 84\,cm^3$		Rectangular Prism

Jan 18-5:13 PM

Area	Volume	Picture	Name
$B = L \cdot W$	$V = Bh$ $V = L \cdot W \cdot h$ $V = 5 \cdot 5 \cdot 5$ $V = 125\,ft^3$ $V = s^3$		Cube

Jan 18-5:16 PM

Yellow CM Review

1. $-8i$ $(-8i)-(-7+3i)+(3i)$

$7 - 8i$

Jan 19-8:03 AM

(9) $\sqrt{25x^2} + \sqrt{9}$

$(5x+3i)(5x-3i)$

$i^2 = -1$

	$5x$	$+3i$
$5x$	$25x^2$	$15xi$
$-3i$	$-15xi$	$-9i^2$

$25x^2 - 9i^2$

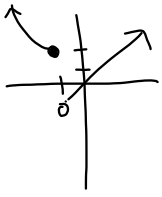
$25x^2 - 9(-1)$

$25x^2 + 9$

Jan 19-8:08 AM

6.4 HW... x^2+1 $x \leq -1$ x $x > -1$

(21)



Jan 19-8:14 AM

(22) $(3,0)$ $(-2,0)$ $(2,4)$
p q x y

$y = a(x-p)(x-q)$

$4 = a(2-3)(2+2)$

$4 = -4a$

$a = -1$

$y = -(x-3)(x+2)$

Jan 19-8:18 AM

(23) $(7,1)$ $(5,-3)$
h k x y

$y = a(x-h)^2 + k$

$-3 = a(5-7)^2 + 1$

$-1 \quad -1$

$-4 = a(5-7)^2$

$-4 = 4a$

$a = -1$

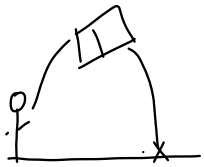
$y = -(x-7)^2 + 1$

Jan 19-8:22 AM

6.5 Projectiles Pg. 158

Feet: $h(t) = -16t^2 + v_0t + h_0$

Meters: $h(t) = -4.9t^2 + v_0t + h_0$



h(t)= height at time t

t= time

v_0= speed / velocity

h= starting height

Jan 5-3:19 PM

Examples: A water balloon is dropped from a height of 26 feet. How long before it lands on someone who is 6 ft tall?

Feet or meters? What is the equation?

$h(t) = -16t^2 + V_0 + h$

h(t)= 6

t=

~~No~~ No speed given

h= 26

$6 = -16t^2 + 26$

$6 = -16t^2 + 26$

$-26 \quad -26$

$-20 = -16t^2$

$\frac{-20}{-16} = \frac{-16t^2}{-16}$

$\sqrt{1.25} = \sqrt{t^2}$

$1.1 = t$

It will land after 1.1 seconds

Jan 5-3:26 PM

Inequality example:

A rocket is launched with an initial velocity of 24 m/s from a platform that is 3 meters high. The rocket will burst into flames unless it stays below 25 meters. Find the interval of time before the rocket bursts into flames.

Feet or meters? What is the equation?

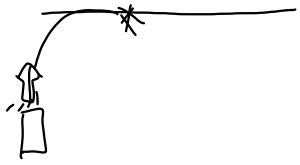
$h(t) = -4.9t^2 + V_0t + h$

h(t)= 25

t=

v= 24

h= 3



Feb 4-1:43 PM

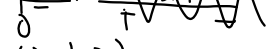
$25 > -4.9t^2 + 24t + 3$

$-4.9t^2 + 24t + 3 < 25$

$-25 \quad -25$

$-4.9t^2 + 24t - 22 < 0$

$t = 1.2 \quad t = 3.7$



$(0, 1.2)$

Jan 18-5:24 PM

Finish yellow CM review

Jan 19-8:53 AM