Pick Up the
Rotating Warm Up
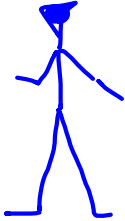
HW TALLY

Looking back on 2015
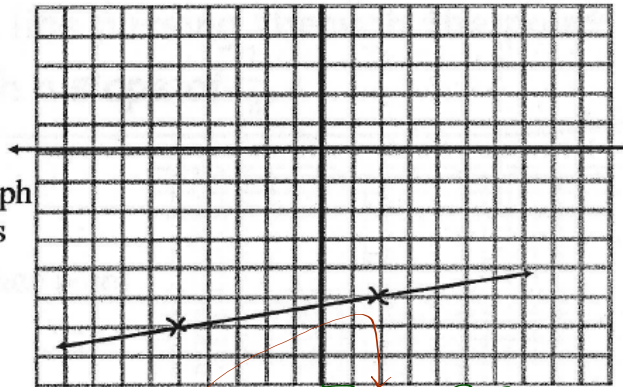
Best photos of the year 📷

H ①

Determine the x-intercept of the graph below. It's equation is

x - 7y = 37

$(, 0)$
$, y=0$

$y = 0$ for all x-intercepts

So set $y = 0$

$X - 7y = 37$

$X - 7(0) = 37$

$X = 37$

$(37, 0)$

② Write the equation of the line that passes through

(-4, -3) and (7, 1)

$$M = \frac{-3 - 1}{-4 - 7}$$

$$= \frac{-4}{-11}$$

$$= \frac{4}{11}$$

$$1 = \frac{4}{11}\left(\frac{7}{1}\right) + b$$

$$1 = \frac{28}{11} + b$$

multiply by 11

$$11 = 28 + 11b$$

$$\frac{-17}{11} = \frac{11b}{11}$$

$$b = -\frac{17}{11}$$

$$\boxed{y = \frac{4}{11}x - \frac{17}{11}}$$

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③ $t(n) = 3(4)^n$

0 term multiplier

12	48	192	768
n=1	n=2	n=3	

④ $t(n) = 4(3)^n$

12	36	108	324
①	②		

5. add 200 arithmetic

784, 984

6) 21, 1, ⁻19, ⁻39, ___, ___

6. subtract 20 arithmetic

-59, -79

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7. multiply by 1/4 geometric   640, 160, 40, 10

$\frac{10}{40}$

? ?

2.5, .625

1, 5; 20, 60, 120, 120   0

8. 120, 120, 0   neither

Questions on HW

#105 is not shown
on the solutions

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105   (2,0) (0,-3)   add

find the slope   find y-intercept   Write
                                                   the
$$M = \frac{-}{-}$$ Use (0,-3)   equation

$$M = \frac{-3-0}{0-2}$$ $$y = \frac{3}{2}x + b$$

$$= \frac{-3}{-2} = \boxed{\frac{3}{2}}$$ $$y = \frac{3}{2}x - 3$$

1.5

104 $3x + 4y = 12$

X-intercept   Y-intercept   Sketch
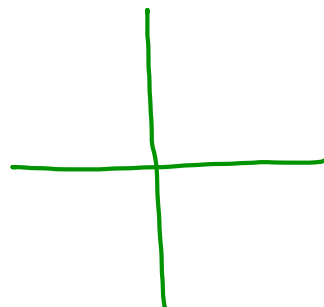
$(x, 0)$

$3x + 4y = 12$

$3x = 12$

$x = 4$

x-int is $(4, 0)$

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106 a

ⓐ $x^2 + 3x - 3 = 0$ ← can't be factored so use Quadratic Formula

$a = 1$

$b = 3$ $x = \dfrac{-b \pm \sqrt{b^2 - 4ac}}{2a}$

$c = -3$

$$X = \frac{-(3) \pm \sqrt{(3)^2 - 4(1)(-3)}}{2(1)}$$

$a = 1$
$b = 3$
$c = -3$

$$X = \frac{-3 \pm \sqrt{21}}{2}$$

$$X = \frac{-3 + \sqrt{21}}{2} \approx 0.79$$

$$X = \frac{-3 - \sqrt{21}}{2} \approx -3.79$$

106b

$$3x^2 - 7x = 12$$
$$3x^2 - 7x - 12 = 0$$

$a = 3$
$b = -7$
$c = -12$

$$X = \frac{-(-7) \pm \sqrt{(-7)^2 - 4(3)(-12)}}{2(3)}$$

$$\}$$

$$X = \frac{7 \pm \sqrt{193}}{6}$$

$$X = \frac{7 + \sqrt{193}}{6} = 3.48$$
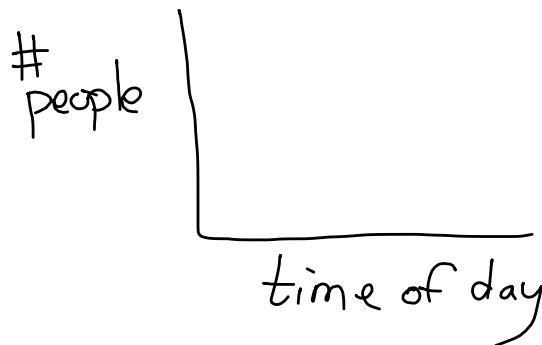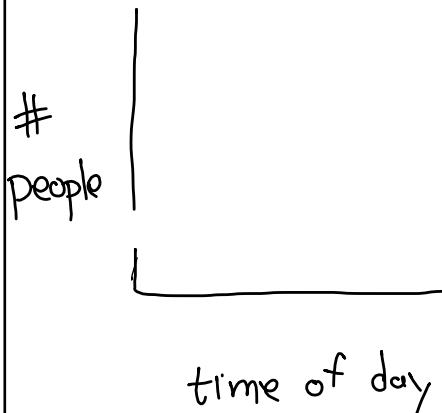
$$X = \frac{7 - \sqrt{193}}{6} = -1.15$$

107　　$2.00 per 3 songs
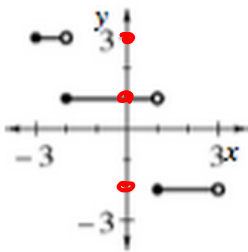　　　　X　per 17 songs

$$\frac{2}{3} = \frac{x}{17}$$

the solution
shows the
final amount
rounded to
nearest dollar.

108　Sketch a graph showing ——relationship
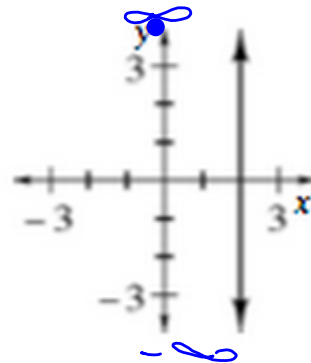between number of people on campus
and time of day.

people |
time of day

people |
time of day

a.

D: $-3 \le X < 3$

Range $-2, 1, 3$

b.

109

D: $-b$ $x = 2$

Range $-\infty < y < \infty$

c.
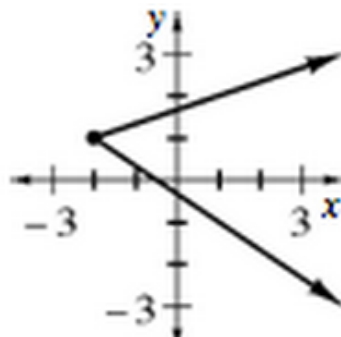
D: $-2 \le x < \infty$

Range $-\infty < y < \infty$

110
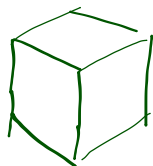
a) ($1, 2, 3, 4$) $5, 6$

b) $P(4) = \dfrac{1}{6}$

c) $P\left(\text{number} < 5\right) = \dfrac{4}{6}$

Check your HW

Ch. 1 Test Information

handout

79%   83

(40)

Open your

Function Investigation Questions
to help us make Summary Statements

take a minute to
review them

Today, you will investigate a new function, using the Investigation Questions.

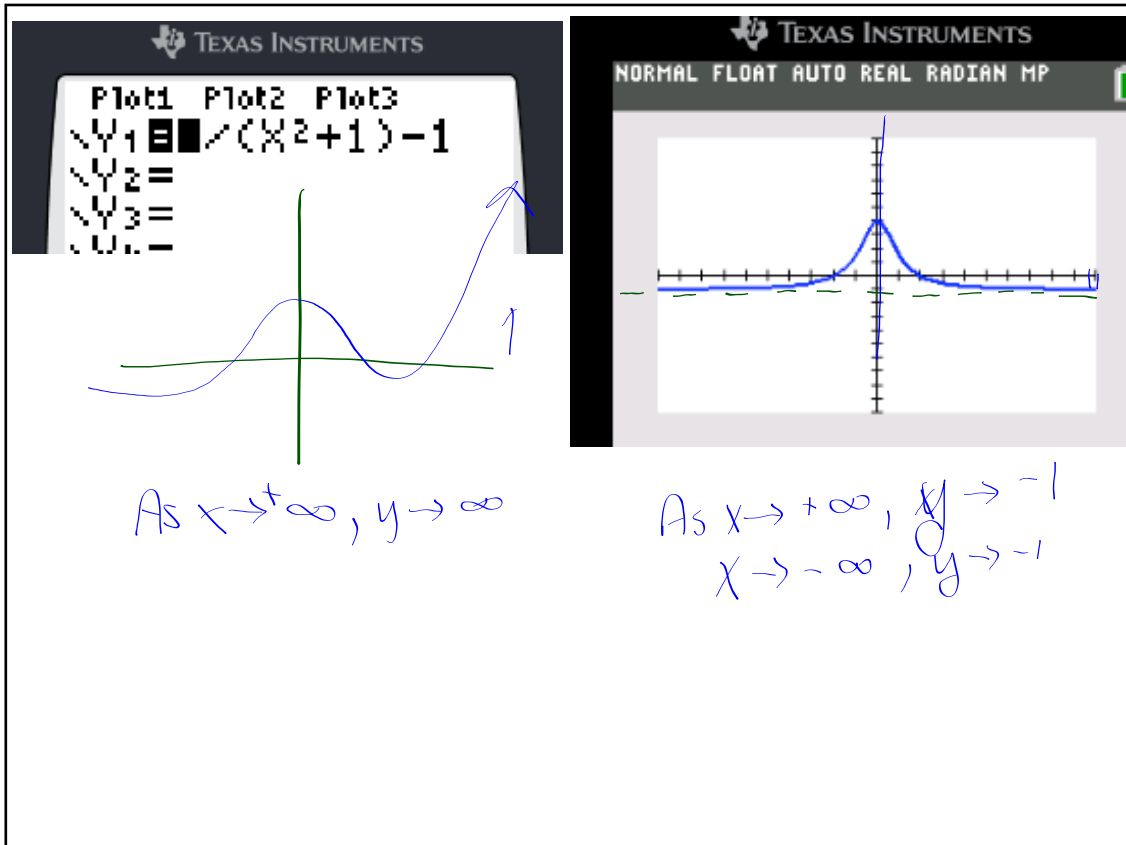Work together, each person writing in their own algebra log.

When finished, pick up a blue piece of paper to write your agreed upon answers.

Try to learn from each other. Eventually you'll be doing something similar on your own.

I don't expect you to be
flawless on all aspects yet.

Investigate
(by making Summary Statements)

$$f(x) = \frac{5}{(x^2+1)} - 1$$

TEXAS INSTRUMENTS

Plot1 Plot2 Plot3

$\setminus Y_1 \blacksquare \blacksquare / (X^2+1)-1$

$\setminus Y_2 =$

$\setminus Y_3 =$

TEXAS INSTRUMENTS

NORMAL FLOAT AUTO REAL RADIAN MP

As $x \to {}^+ \infty$, $y \to \infty$

As $x \to +\infty$, $y \to -1$

$x \to -\infty$, $y \to -1$

B.B.

How to seal a bag of chips without a clip

Assignment

Assignment 1.2.4
(a handout)