HW
Hotline →

①

Then
② Pick up and do the warm Up

as soon as you get to part **1c,** have <u>one</u> person in your group pick up any needed graphing calculators <u>from MR.C</u>.

Warm Up/Notes

1.1.3
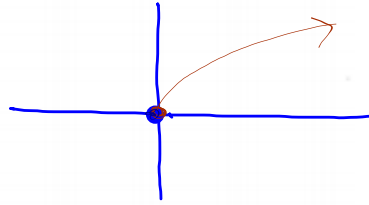
1a. Can −16 be used as an input for $f(x) = \sqrt{x}$?

<u>NO</u>, therefore −16 is <u>not</u> part of the domain of this function

b. Find two more values that are <u>not</u> part of the domain of $f(x)$

−1
   −1.53
−2

any negative # would not be in the domain.
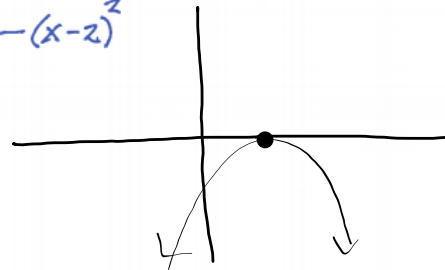
c. Make a sketch of the graph →
of $f(x) = \sqrt{x}$

d. Describe the domain and verify
with the "TABLE" on your Graphing
Calculator.

domain: $0 \leq x < \infty$
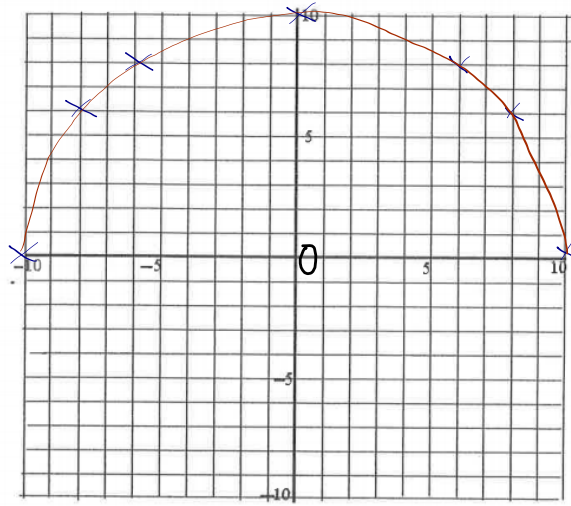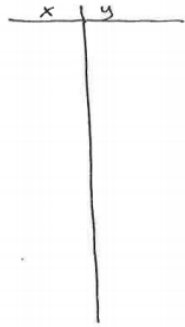
$x \geq 0$

2. a. Make a sketch of $g(x) = -(x-2)^2$

b. What is the domain? $-\infty < x < \infty$

c. What is the range?
(of possible y-values)
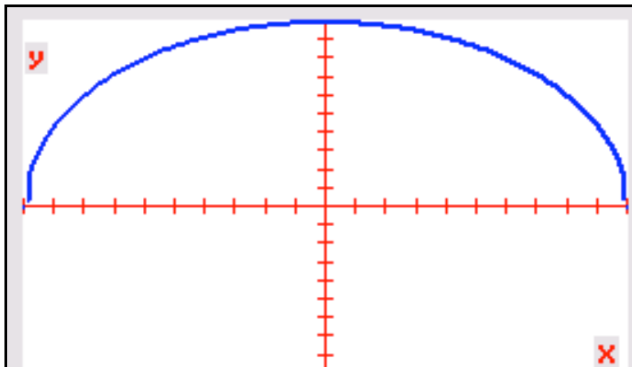
$-\infty < y \leq 0$ $\mathbb{R}$

3. Now make a detailed graph of $f(x) = \sqrt{100 - x^2}$

x	y

Describe the domain.

Describe the range.

NORMAL FLOAT AUTO
PRESS + FOR △Tbl

X	Y1
-10	0
-9	4.3589
-8	6
-7	7.1414
-6	8
-5	8.6603
-4	9.1652
-3	9.5394
-2	9.798
-1	9.9499
0	10

X= -10

④ Factor $2x^2 + 7x + 6$

$(2x + 3)(x + 2)$

$(2x + 3)(x + 2)$

⑤ $(2x^3)(-5x^1) = -10x^4$

$(4x^2)^2(10x^2) = (16x^4)(10x^2)$

$16(x^2)^2$

$= 160x^6$

HW Questions ?

From now on •

16)

11-16

1-20

Make a table and graph the function $f(x) = \frac{1}{2}x^2$.

1-25

$$3(x - 2) - 2(x + 7) = 2x + 17$$
$$3x - 6 - 2x + 14 = 2x + 17$$
$$x + 8 = 2x + 17$$
$$-9 = x$$

---

13 f

$$3x^2 + 14x - 5 = 0$$
$$(\quad)(\quad) = 0$$

quad. term

$3x^2$

constant

-5

$3x^2$

-5

k: •···· quad term
times constant

$-15x^2$

$14x$ — linear term

× ●

$3x$	$3x^2$	$15x$
-1	$-x$	-5

$-15x^2$

$-x$ $15x$

$14x$

13d) $x^2 - 5x = 0$

↑_____ factor out GCF

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16   a) $y = 3x + 5$ b) $y = 3 - 3x$

when x = 2
    x = 0

what is the
 y-intercept?

slope 5

$(0, -2)$

(a) $y = 5x - 2$

(b)   find, $x = 2$
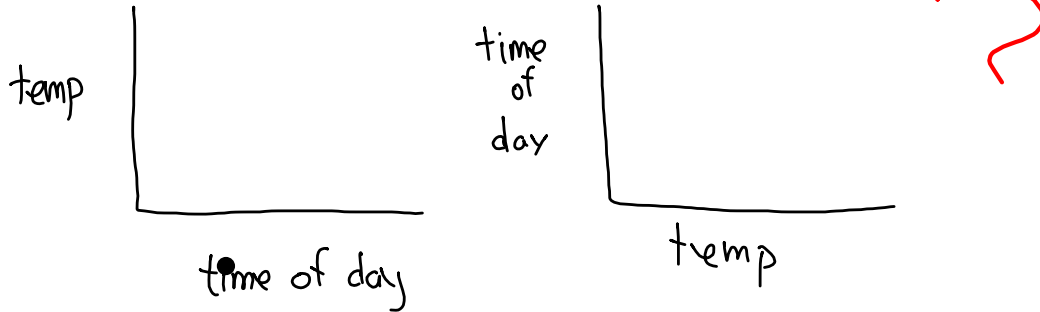
$y = 5(2) - 2$

$= 8$

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17   $f(x) = x^2 + 2x + 1$

(a) $f(3) =$

(b) $f(-4) =$

(c) $f(-22.872) =$

(18) c   Sketch a graph that shows
the relationship between temperature
and time of day

temp

time of day

time of day

temp

?

(23) a

4
3
2
1

# of classroom

30 60 90 120

students
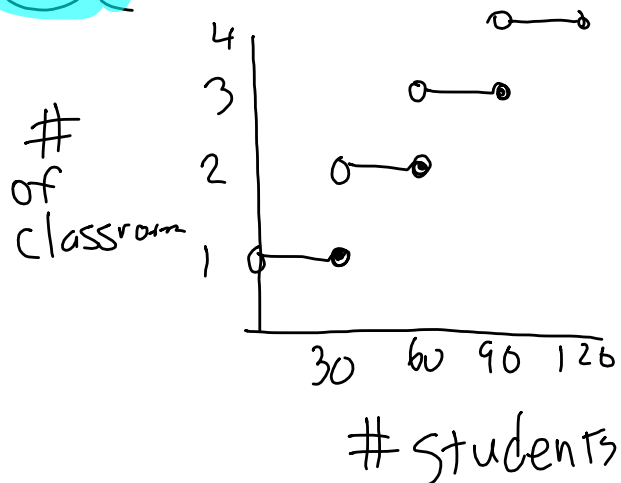
inputs

0 to 120

Outputs

0 to 4

TODAY:

Find **Domain** and **Range**

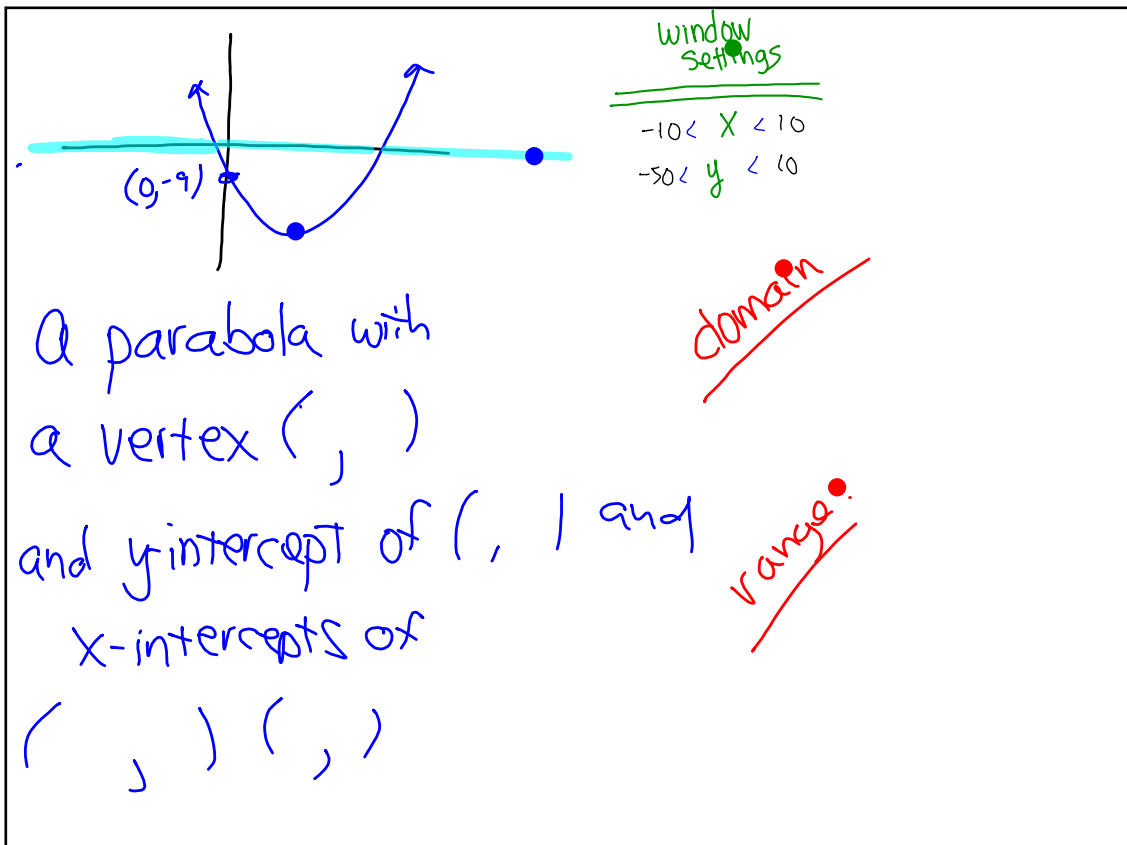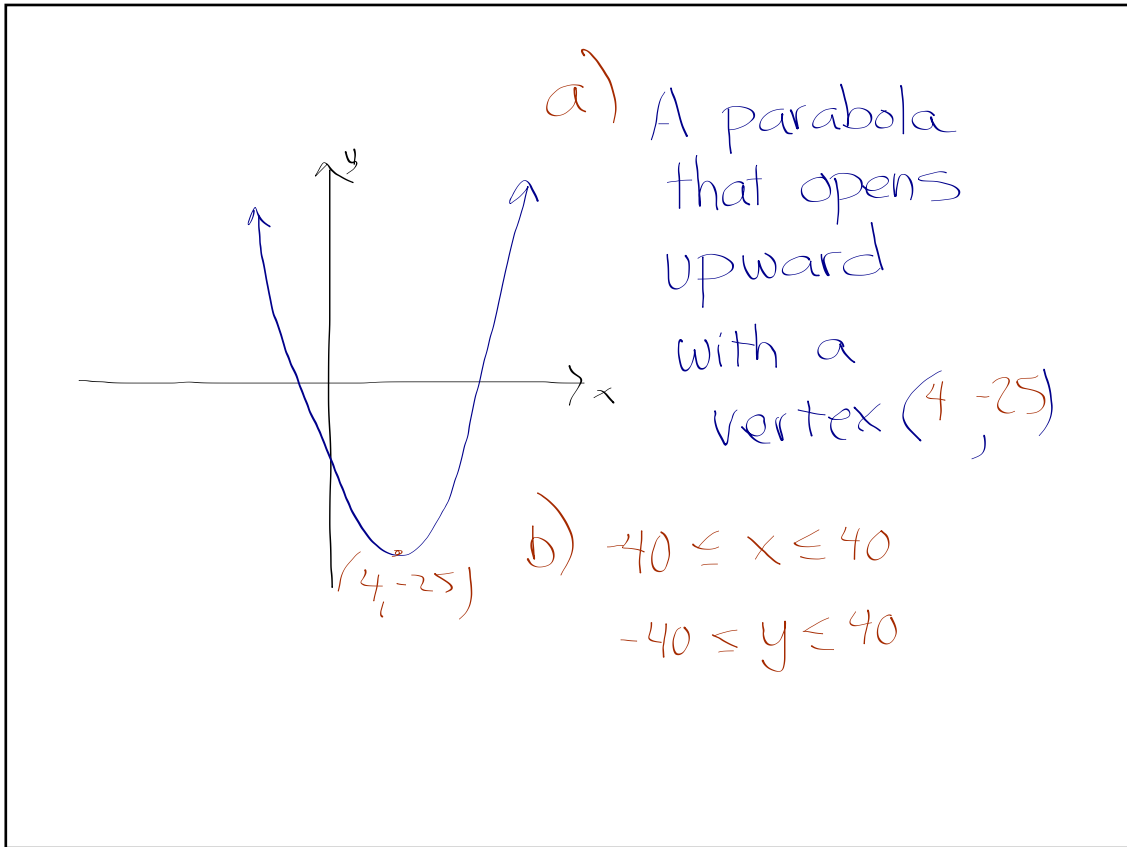of a function given either its graph or its equation.

Many days we will use what are called "Core Problems" to develop your understanding of the skills and <u>concepts</u>.

I want you to record this process in your notes.

Do **1-27**ab

I'll work along with you.

Start by making a quality labeled sketch

a) A parabola that opens upward with a vertex (4, -25)

(4, -25)

b) $-40 \leq x \leq 40$

$-40 \leq y \leq 40$

(0, -9)

window settings

$-10 < x < 10$

$-50 < y < 10$

domain

range

A parabola with a vertex (,) and y intercept of (,) and x-intercepts of (,) (,)

1-27

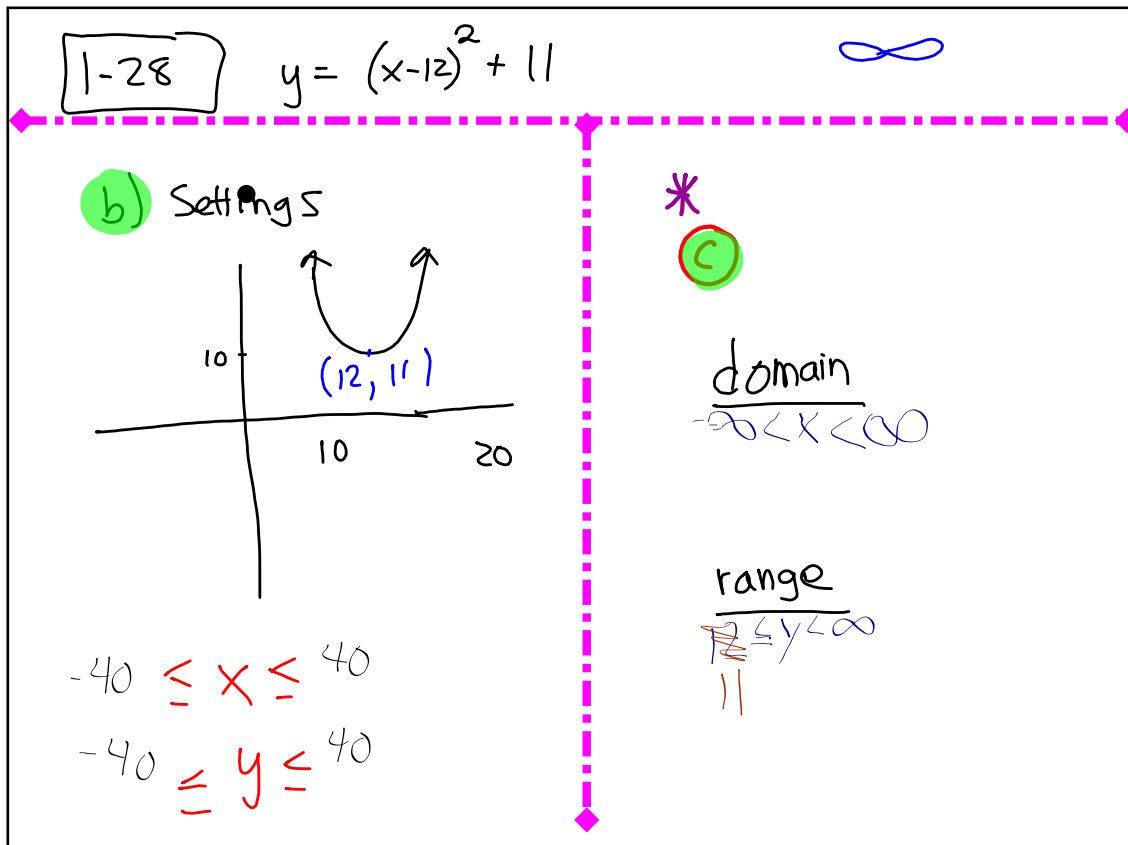a) $y = (x+1)(x-9)$

describe the graph ?

b) What window ?

c) How are settings related to domain and range ?

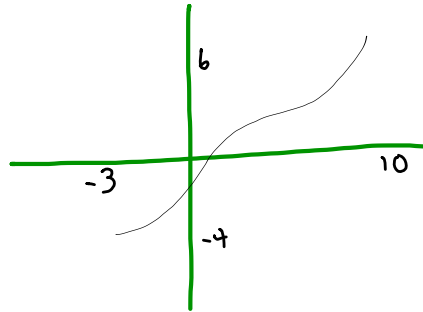Vertex, x-intercepts, and y-intercepts

B.B.

continue to ⌐1-28⌐ and ⌐1-29⌐
                    abc
                    ↑
                  sketch

- Be sure everyone in your
  group is <u>solid</u> before
  anyone goes on to # ⌐1-29⌐

⌐1-28⌐ $y = (x-12)^2 + 11$ ∞

b) Settings

(12, 11)

10

10   20

$-40 \leq x \leq 40$
$-40 \leq y \leq 40$

*
©
domain
$-\infty < x < \infty$

range
$11 \leq y < \infty$
11

1-29 a   Sketch a function   ✳

domain
 −3 ≤ x ≤ 10

range
 −4 ≤ y ≤ 6
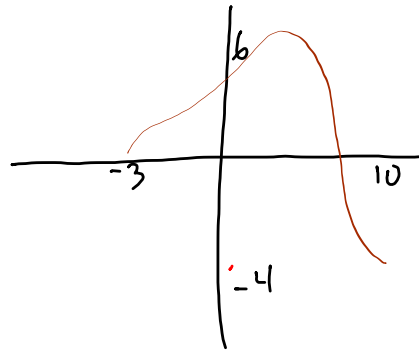
b)   domain: all real numbers   −∞ ≤ x ≤ ∞

range: only 2, 4, 5, 8
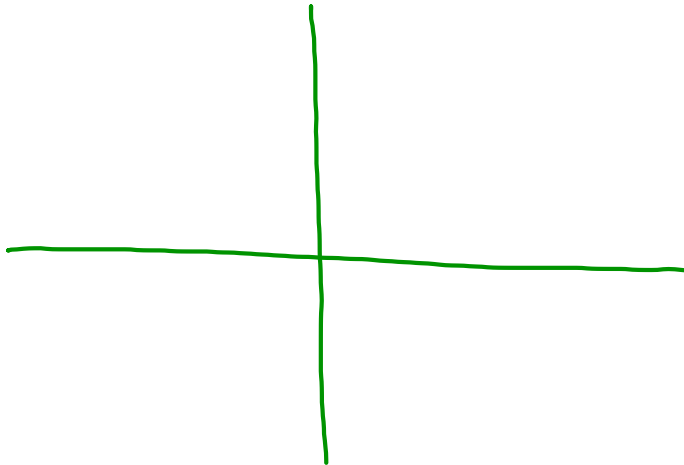
1-30 $5x - y = 35$ $3x + y = -3$

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quick
LCQ

everyone must turn
their desks forward

when everyone in your pod
has turned it in, the return desks
to normal position.

g

December 06, 2019

Assignment

1.....34-36, 37acde, 38, 40a

If getting a graphing calculator is a hardship at this time for your family, then see me about getting a loaner from the math department. See me before you leave school today.