

# CALCULATOR & TEST TAKING TIPS

## AGENDA

Warm-Up (Test-Taking discussion)

HW check

Calculator Tips (7)

Showdown

HW: # 1-7

## REMINDERS

Algebra 1 STAAR  
Wednesday!!

Signed PR due tmr!

Defeat EOC book  
due Friday 5/8

## WARM-UP

Turn in your Warm-Ups if you haven't already!

Read the article on the pink paper. Write down any notes or tips you want to try at the top of your "7" tab.

Please do not write on the pink paper!!

When you are done, write down any procedures or ideas that have helped you overcome test anxiety and be successful on a test.

# **CALCULATOR & TEST TAKING TIPS**

- get good night's sleep
- study, not cram
- small breaks
- quiz you
- flash cards
- connections between knowledge

# CALCULATOR & TEST TAKING TIPS

- good night's sleep
- don't cram
- flashcards → quizzing
- End Plus End
- good attitude
- water bottle / gum



# CALCULATOR & TEST TAKING TIPS

- question yourself
- read new resources
- no cramming!
- good night's rest
- good breakfast
- breaks • reorganize test
- good attitude

# **CALCULATOR & TEST TAKING TIPS**

- good meal & good night's rest
- don't cram
- study in advance
- new connections
- flash cards
- good attitude

# 

### 

1. continue pattern  
 OR  
 2. calc. **STAT**  
**STAT** 1: Edit  
 L1 → X's L2 → Y's  
**STAT** 4: LinReg  
 Plug in X.

The table below shows the average tuition per semester at a community college over a 20-year period.

Year	Average Tuition
1980	\$385
1985	\$510
1990	\$605
1995	\$730
2000	\$825

If the trend continues, what is the best estimate of the tuition at this community college in 2005?

- A. \$920  
 B. \$985  
 C. \$950  
 D. \$930

Linear  
 $y = ax + b$   
 $a = 22$   
 $b = -43169$

$y = 22x - 43169$

#### Plot Points

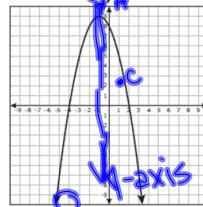
front of test booklet,  
 reference materials  
 & grid paper

\* plot points (X, Y)

look @ important points

\* 2 lines crossing  
 \* on axis

11 The graph of a quadratic function is shown below.



Which statement about this graph is not true?

- A. The graph has a y-intercept at (0, 8).  
 B. The graph has a maximum point at (-1, 9).  
 C. The graph has an x-intercept at (2, 0).  
 D. The graph has the y-axis as a line of symmetry.

#### Factoring or Simplifying

1. Factor  $x^2 - x - 6$

- A.  $(x+3)(x-2)$   
 B.  $(x+3)(x+2)$   
 C.  $(x-3)(x+2)$   
 D.  $(x+1)(x-6)$

2. Factor  $2x^2 - 5x - 12$

- A.  $(2x-3)(x+4)$   
 B.  $(2x+4)(x-3)$   
 C.  $(2x+3)(x-4)$   
 D.  $(x+3)(x-4)$

3. Simplify

- A.  $13x + 10$   
 B.  $-7x + 14$   
 C.  $13x + 14$   
 D.  $-7x + 10$

#### Straight-Up Calculator

1. Given  $2x + 3y = 12$  and  $2x - y = 4$ , what is the value of  $x + y$ ?

- A. -5  
 B. -1  
 C. 1  
 D. 5

2. How can the graph of  $y = x^2 + 6$  be obtained from the graph of  $y = x^2 - 8$ ?

- A. Move the graph of  $y = x^2 - 8$  up 6.  
 B. Move the graph of  $y = x^2 - 8$  down 8.  
 C. Move the graph of  $y = x^2 - 8$  down 14.  
 D. Move the graph of  $y = x^2 - 8$  up 14.

question in y,  
 Answer choice in y  
 TABLE → #s match  
 GRAPH → same

when one or more  
 variables...  
 pick a #  
 (not 0 or 1)

Solve for y!

**Zoom** u: standard

Error? Goto...

Reset  
**2nd** **+** **7** **1** **2**

Fraction  
**ALPHA** **N=**

**2nd** **TRACE**

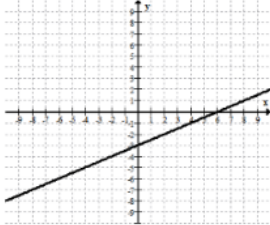
Bob → all way  
 to left, enter



practice

1. The graph of the function  $y = \frac{1}{2}x - 3$  is shown below. If the line is translated 2 units down, which equation will best describe the new line?

- A.  $y = \frac{1}{2}x - 1$
- B.  $y = \frac{1}{2}x + 1$
- C.  $y = x - 5$
- D.  $y = \frac{1}{2}x - 5$



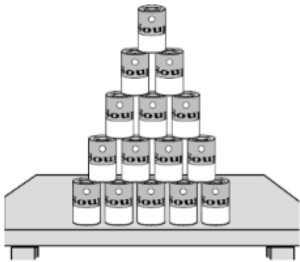
2. The table shows a set of values for x and y.

x	3	1	-2	-3	-7
y	-4	-6	-9	-10	-14

Which equation best represents this set of data?

- A.  $y = x - 1$
- B.  $y = x - 7$
- C.  $y = 2x$
- D.  $y = -x - 1$
- E.  $y = x - 2$

3. Martin arranged some cans of soup in a triangular pattern on a table. The top row had 1 can, the second row had 2 cans, and the third row 3 can, and so on. The arrangement is shown below.

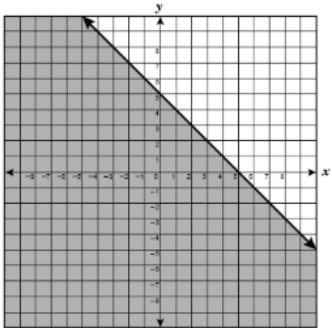


Which equation gives the total number of cans in the arrangement, T, when the cans are stacked n rows high?

- A.  $T = \frac{n(n-1)}{2}$
- B.  $T = 3n$
- C.  $T = \frac{2(n+1)}{n}$
- D.  $T = \frac{n(n+1)}{2}$
- E.  $T = 2n(n-1)$

4. Which inequality best describes the graph below?

- A.  $x - y \leq -5$
- B.  $x + y \geq 5$
- C.  $x + y \leq 5$
- D.  $x - y \leq 5$
- E.  $x + y \geq -5$



5. The equations of 2 lines are given as
$$2x - y = 2$$

$$3x + 4y = 25$$

What are the coordinates of the point of intersection?

- A.  $(5\frac{1}{2}, 9)$
- B.  $(4, 3)$
- C.  $(3, 4)$
- D.  $(3, -4)$
- E.  $(-1, -4)$

6. What is the value of x in the following equation?
$$2x - (4x - 6) = 0$$

- A. -8
- B. -4
- C. -3
- D. 3
- E. 4

7. The chart shows the prices of a medium pizza with different number of toppings

Medium Pizza	
Number of Toppings	Total Price
1	\$5.50
2	\$7.00
3	\$8.50
4	\$10.00

Which equation shows the relationship between the total price, P, and the number of toppings, t?

- A.  $P = 4t + 1.50$
- B.  $P = 1.50t + 4$
- C.  $P = t(4 + 1.50)$
- D.  $P = 1.50(4 + t)$
- F.  $P = 4(t + 1.50)$

# **CALCULATOR & TEST TAKING TIPS Showdown**

## **Instructions:**

**At your table: Number yourselves off 1, 2, 3, and 4.**

**All number 2's - come get whiteboard markers to show work on your table.**

**You need at least one device with the capability to scan QR codes.**



The average annual rainfall for a particular city is 33.2 inches. In the first 30 weeks of this year, the city received a total of 9.7 inches of rain. If it is expected to rain between 1.5 and 2.1 inches per week through the end of the year, what is a reasonable number of additional weeks needed for this city to reach its average annual rainfall?

- A** 23 weeks
- B** 13 weeks
- C** 9 weeks
- D** 16 weeks

What is the vertex of the graph of the quadratic function  $f(x) = x^2 + 6x + 10$ ?

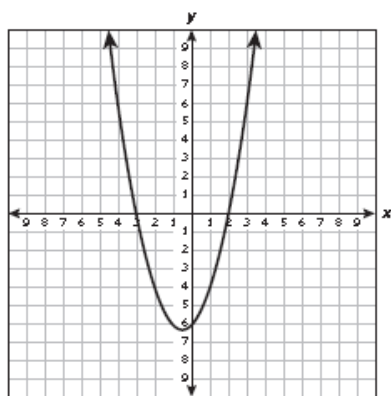
**F**  $(3, -1)$

**G**  $(-3, -1)$

**H**  $(-3, 1)$

**J**  $(3, 1)$

The function  $y = x^2 + x - 6$  is graphed below.



What are the values of  $x$  when  $x^2 + x - 6 = -4$ ?

**F**  $x = -4$  and  $x = 6$

**G**  $x = -2$  and  $x = 1$

**H**  $x = -3$  and  $x = 2$

**J**  $x = -5$  and  $x = -6$



Which expression is equivalent to  $-6x^2 - 11x - 4$ ?

- A**  $(3x + 7)(3x - 3)$
- B**  $(-3x + 4)(2x - 1)$
- C**  $(3x - 7)(3x + 3)$
- D**  $(-3x - 4)(2x + 1)$

If the graph of  $y = 9x + 4$  is translated 4 units up, which equation describes the new graph?

**F**  $y = 9x + 8$

**G**  $y = 13x + 4$

**H**  $y = 13x + 8$

**J**  $y = 4x + 4$

The population of a town is currently 9,000. The function  $p = 9,000 + 8t^2$  can be used to estimate  $p$ , the population of the town  $t$  years from now. Based on this function, which statement is true?

- F** The population of the town is increasing at a constant rate.
- G** The population of the town will reach 10,000 between 11 and 12 years from now.
- H** The population of the town will increase by 256 people two years from now.
- J** The population of the town will increase and then decrease.



The value of  $y$  varies directly with  $x$ . Which function represents the relationship between  $x$  and  $y$  if  $y = \frac{20}{3}$  when  $x = 30$ ?

**F**  $y = 200x$

**G**  $y = \frac{2}{9}x$

**H**  $y = \frac{110}{3}x$

**J**  $y = \frac{9}{2}x$

Which set of ordered pairs contains only points that are on the graph of the function  $y = 12 - 3x$ ?

- A**  $\{(-3, -27), (0, 0), (6, 54)\}$
- B**  $\{(-18, 10), (-6, 6), (18, -2)\}$
- C**  $\{(-5, 27), (-1, 15), (8, -12)\}$
- D**  $\{(-7, -9), (-4, 0), (2, 18)\}$

The first six numbers in a pattern are shown below.

$$\frac{1}{3}, \frac{4}{3}, 3, \frac{16}{3}, \frac{25}{3}, 12, \dots$$

If the pattern continues, which expression can be used to find the  $n$ th number in the pattern?

**A**  $\frac{2n}{3}$

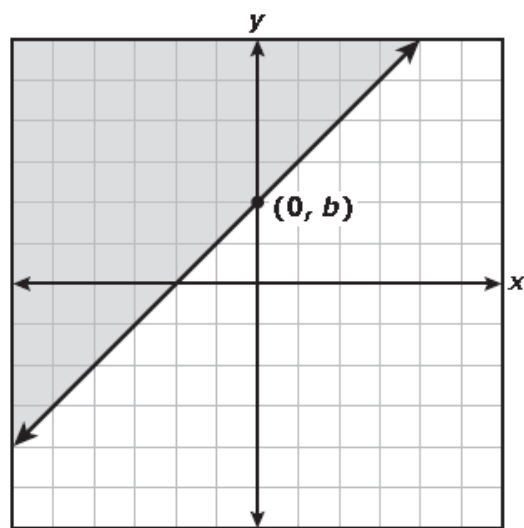
**B**  $\frac{n^2}{3}$

**C**  $\frac{n^2}{6}$

**D**  $\frac{2n}{6}$



Which inequality can be represented by the graph below?



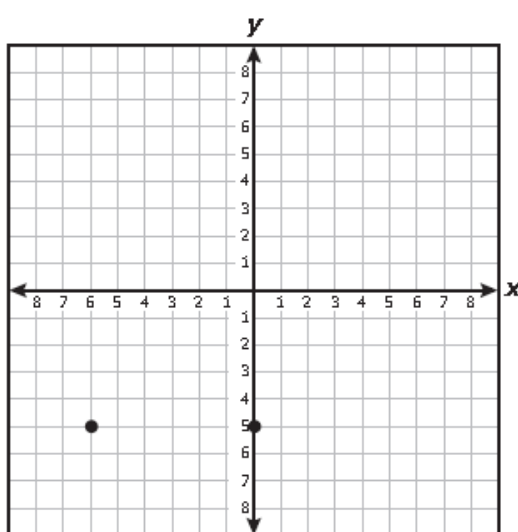
**F**  $y \geq x + b$

**G**  $x - y \geq -b$

**H**  $x + y \leq b$

**J**  $-y \leq x + b$

Two points on the graph of a quadratic function are shown on the grid below.



What is the equation for the axis of symmetry of the graph of this function?

# **CALCULATOR & TEST TAKING TIPS**

Completed Defeat the EOC book due  
Friday (QUIZ grade)

YOU MUST TAKE YOUR NOTEBOOK  
HOME TONIGHT TO STUDY WITH!

## **GOOD LUCK**

## **YOU WILL DO GREAT!!!**

