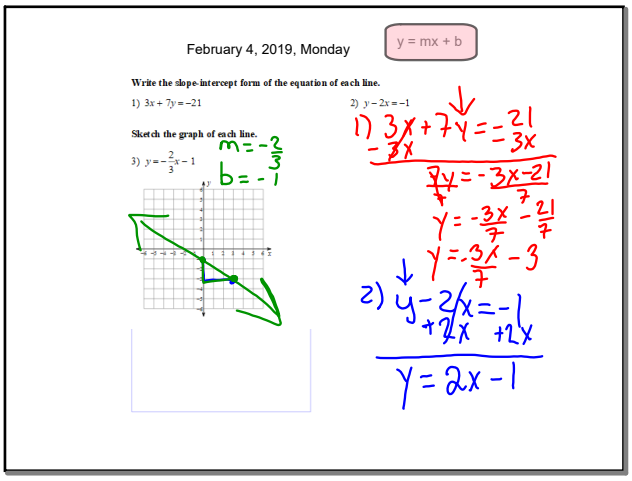

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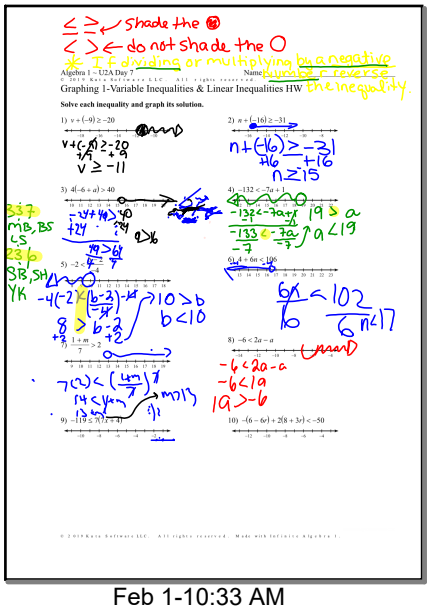

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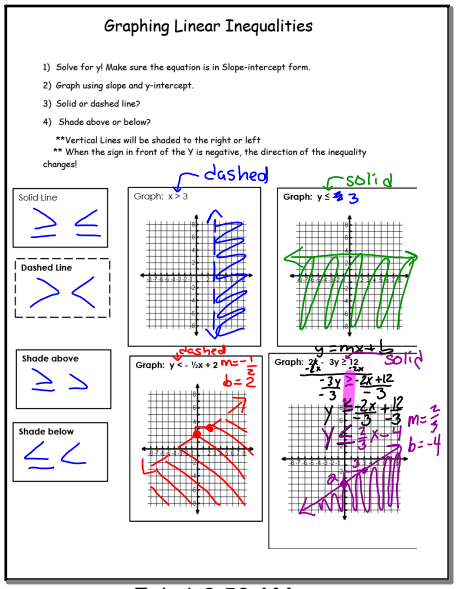

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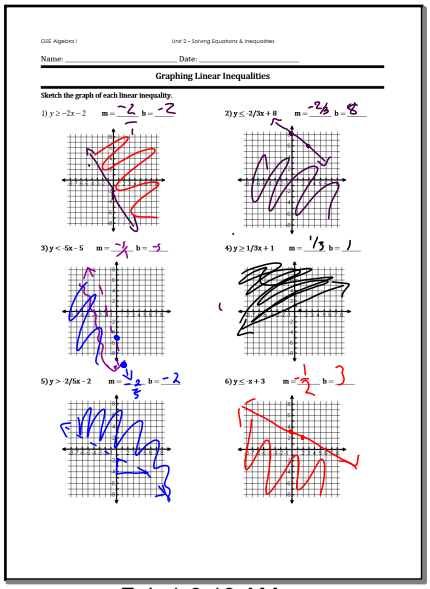

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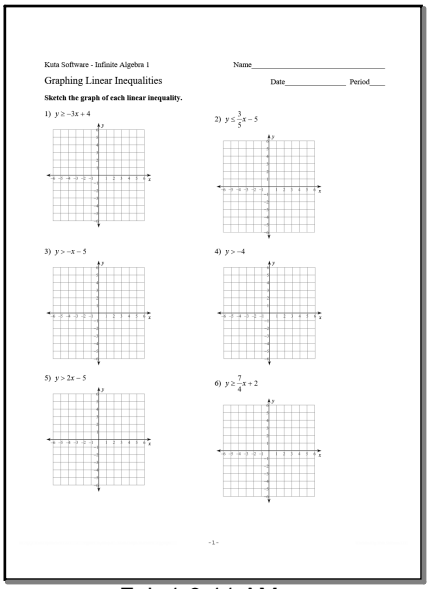

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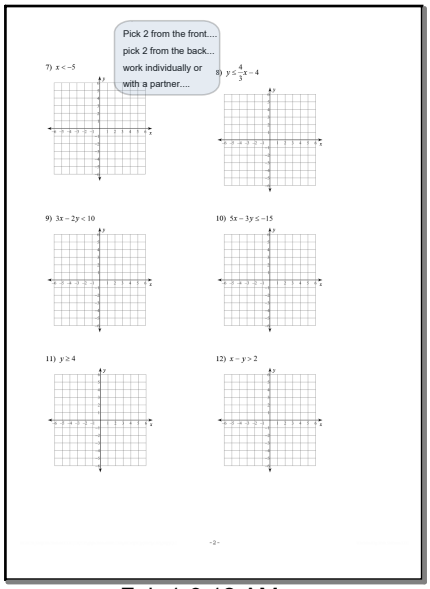

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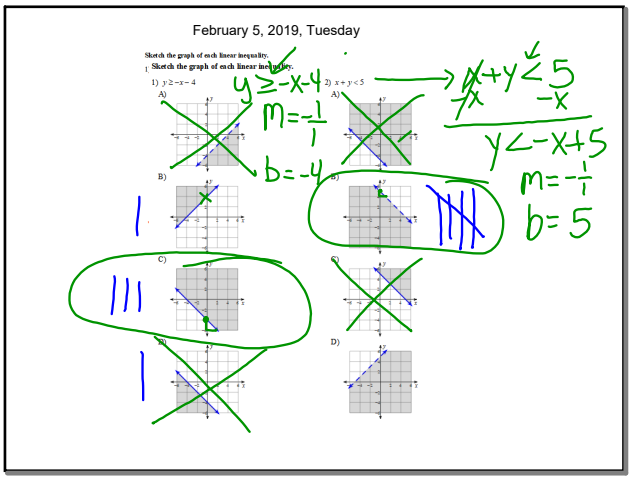

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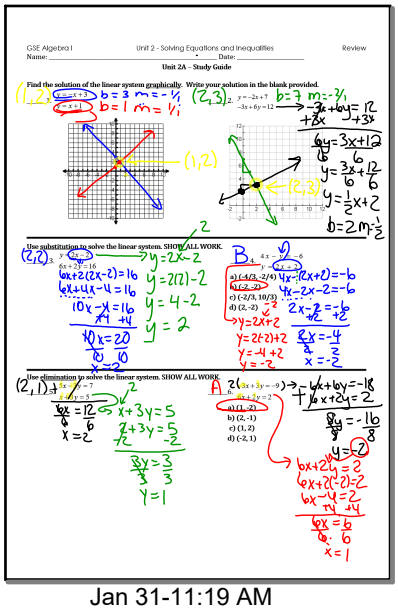

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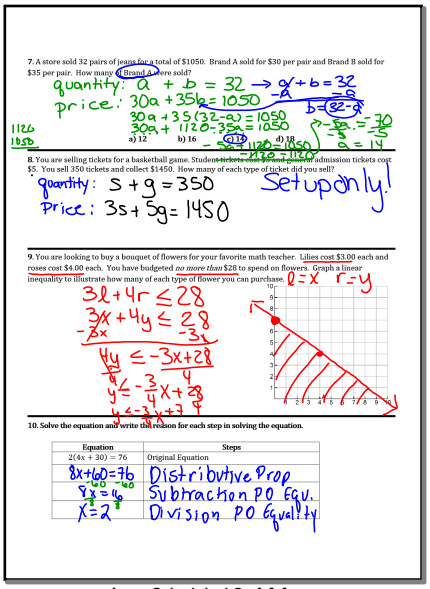

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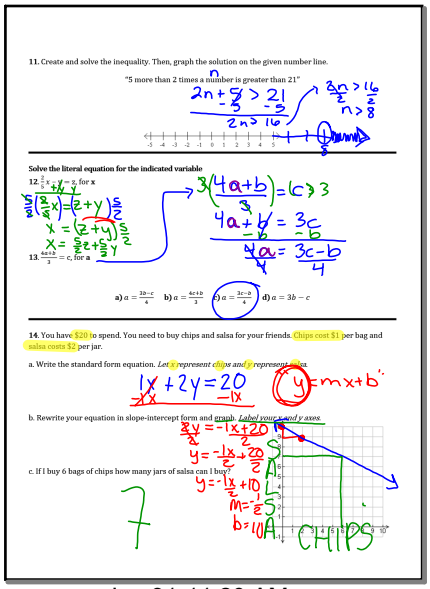

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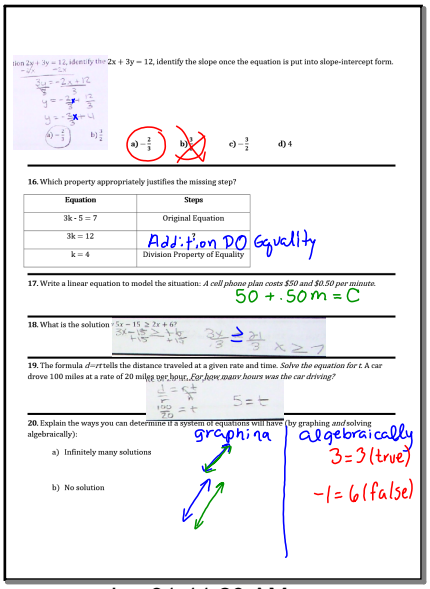

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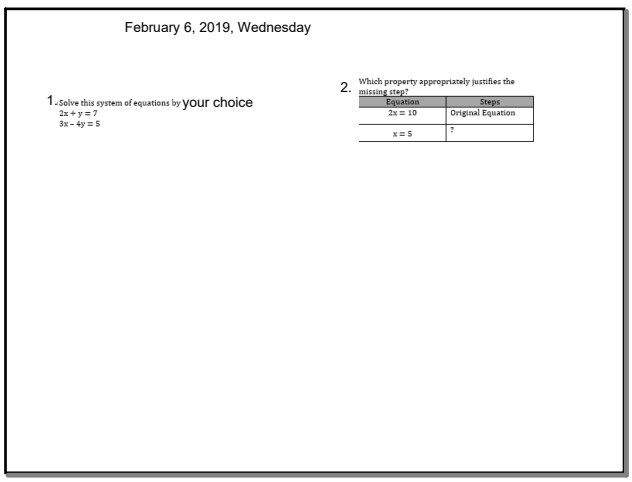


Jan 31-11:24 AM

Literacy Activity Name_____ ID: 1

Applications of Linear Systems Date_____ Period____

1) Huong and Rob each improved their yards by planting daylilies and ornamental grass. They bought their supplies from the same store. Huong spent $120 on 12 daylilies and 12 bunches of ornamental grass. Rob spent $66 on 8 daylilies and 6 bunches of ornamental grass. Find the cost of one daylily and the cost of one bunch of ornamental grass.

2) The senior classes at High School A and High School B planned separate trips to New York City. The senior class at High School A rented and filled 2 vans and 12 buses with 672 students. High School B rented and filled 12 vans and 5 buses with 414 students. Every van had the same number of students in it as did the buses. How many students can a van carry? How many students can a bus carry?

3) The school that Emily goes to is selling tickets to a play. On the first day of ticket sales the school sold 9 senior citizen tickets and 6 student tickets for a total of $102. The school took in $72 on the second day by selling 4 senior citizen tickets and 6 student tickets. What is the price each of one senior citizen ticket and one student ticket?

4) Imani's school is selling tickets to the annual talent show. On the first day of ticket sales the school sold 12 senior citizen tickets and 4 child tickets for a total of $96. The school took in $110 on the second day by selling 11 senior citizen tickets and 11 child tickets. What is the price each of one senior citizen ticket and one child ticket?

Feb 1-9:14 AM

Literacy Activity Name_____ ID: 1

Applications of Linear Systems Date_____ Period____

1) Huong and Rob each improved their yards by planting daylilies and ornamental grass. They bought their supplies from the same store. Huong spent $120 on 12 daylilies and 12 bunches of ornamental grass. Rob spent $66 on 8 daylilies and 6 bunches of ornamental grass. Find the cost of one daylily and the cost of one bunch of ornamental grass.

daylily: $3, bunch of ornamental grass: $7

2) The senior classes at High School A and High School B planned separate trips to New York City. The senior class at High School A rented and filled 2 vans and 12 buses with 672 students. High School B rented and filled 12 vans and 5 buses with 414 students. Every van had the same number of students in it as did the buses. How many students can a van carry? How many students can a bus carry?

Van: 12, Bus: 54

3) The school that Emily goes to is selling tickets to a play. On the first day of ticket sales the school sold 9 senior citizen tickets and 6 student tickets for a total of $102. The school took in $72 on the second day by selling 4 senior citizen tickets and 6 student tickets. What is the price each of one senior citizen ticket and one student ticket?

senior citizen ticket: $6, student ticket: $8

4) Imani's school is selling tickets to the annual talent show. On the first day of ticket sales the school sold 12 senior citizen tickets and 4 child tickets for a total of $96. The school took in $110 on the second day by selling 11 senior citizen tickets and 11 child tickets. What is the price each of one senior citizen ticket and one child ticket?

senior citizen ticket: $7, child ticket: $3

Feb 1-9:14 AM

Solve using the TI-36 X-Pro

1. _____
2. _____
3. _____
4. _____

5) $x + 3y = -6$, $2x + y = 3$

6) $5x + 4y = 16$, $3x - 4y = 16$

7) $2x + 5y = -9$, $y = -2x + 3$

8) $y = 3x + 14$, $-x - 3y = -2$

9) $y = -2x - 1$, $y = -\frac{1}{2}x + 2$

10) $y = -\frac{7}{3}x + 4$, $y = -\frac{1}{3}x - 2$

Feb 1-9:14 AM

Solve using the TI-36 X-Pro

1. _____
2. _____
3. _____
4. _____

5) $x + 3y = -6$, $2x + y = 3$
(3, –3)

6) $5x + 4y = 16$, $3x - 4y = 16$
(4, –1)

7) $2x + 5y = -9$, $y = -2x + 3$
(3, –3)

8) $y = 3x + 14$, $-x - 3y = -2$
(–4, 2)

9) $y = -2x - 1$, $y = -\frac{1}{2}x + 2$
(–2, 3)

10) $y = -\frac{7}{3}x + 4$, $y = -\frac{1}{3}x - 2$
(3, –3)

Feb 1-9:15 AM

February 7, 2019, Thursday

Solve the literal equation for Z: $6w - y = 2z$

$\frac{6w - y}{2} = \frac{2z}{2}$

$\frac{6w - y}{2} = z$

Solve the literal equation for W: $6w - y = 2z$

Solve for y:

$6w - y = 2z$

$-6w \quad -6w$

$\frac{-y}{-1} = \frac{2z - 6w}{-1}$

$y = \frac{2z}{-1} - \frac{6w}{-1}$

$y = -2z + 6w$

$\frac{6w - y}{6} = \frac{2z + y}{6}$

$+y \quad +y$

$\frac{6w}{6} = \frac{2z + y}{6}$

...test 6

$w = \frac{2z}{6} + \frac{y}{6}$

Feb 1-9:15 AM

Algebra 1: Spiral Unit 1 Name:_____ Block:_____

1. **Circle one: The number x is irrational. Which statement about x – 3 is true?** MGSE9-12.N.RN.3

   A. x – 3 is rational
   B. x – 3 is irrational
   C. x – 3 can be rational or irrational, depending on the value of x.

2. **Multiply** $\sqrt{5} \bullet \sqrt{2}$ **Write your answer in simplest form.** MGSE9-12.N.RN.2

3. 48 cm = _____ feet MGSE9-12.N.Q.1

4. **Circle one: Which measurement is more precise?** MGSE9-12.N.Q.3

   61 cm or 37 mm

5. **How many terms are in the polynomial?** $-2x^2+47$ MGSE9-12.A.SSE.1

6. **Subtract polynomials:** $(w+4)-(3w+2)$ MGSE9-12.A.APR.1

7. In a test, engineers determined that a bicycle can travel at a top speed of 20 feet per second. What is the top speed the bicycle can travel in miles per hour? (1 mile = 5,280 feet) **(N.Q.1b)**

   A. 0.004 *mph* **B.** 0.23 *mph* **C.** 13.6 *mph* **D.** 105,600 *mph*

8. The width of a rectangle is 6 units less than its length *x*. Which expression shows the width of the rectangle? **(A.SSE.1b)**

   A. $x - 6$ **B.** $6 - x$ **C.** $x + 6$ **D.** $6x$

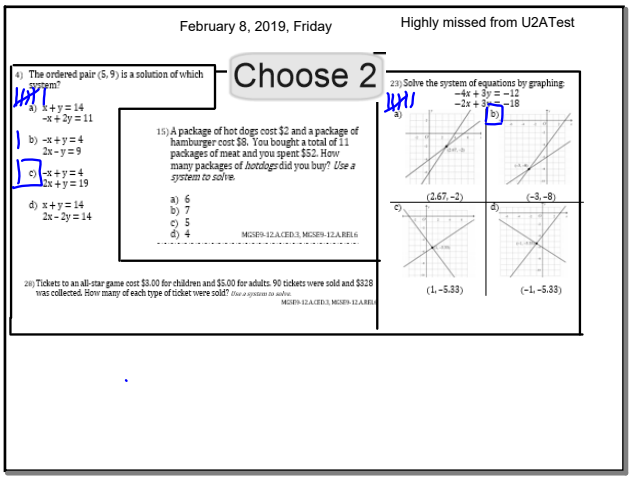
9. Which expression is equivalent to $\sqrt{32} - \sqrt{8}$? **(N.RN.2)**

   A. $2\sqrt{2}$ **B.** $6\sqrt{2}$ **C.** $2\sqrt{6}$ **D.** $2\sqrt{10}$

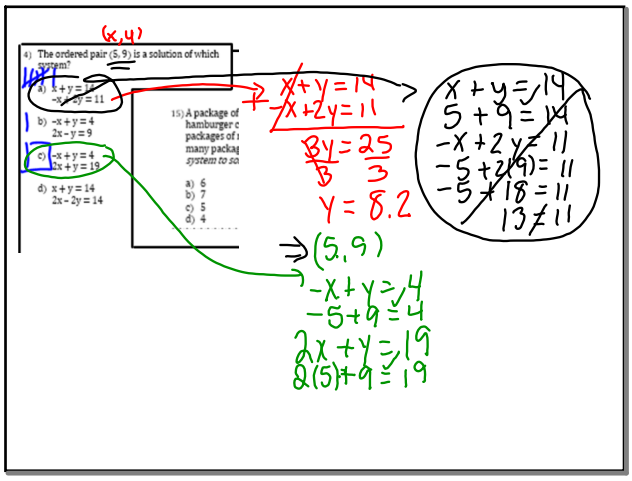
10. What is the result of $(-6x + 7) + (15x - 1)$? **(A.APR.1)**

    A. $25x + 8$ **B.** $13x + 6$ **C.** $19x$ **D.** $25x + 6$

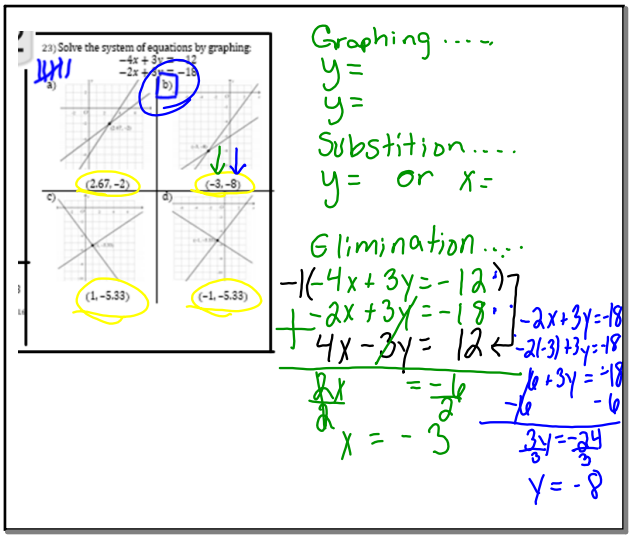
Jan 31-11:28 AM



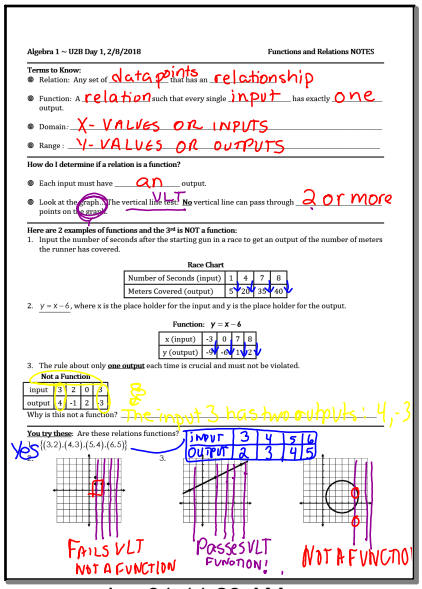
Jan 31-11:27 AM



Feb 8-10:35 AM



Feb 8-10:39 AM



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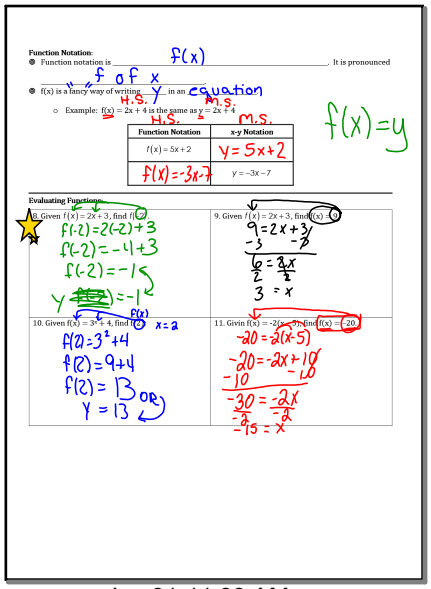
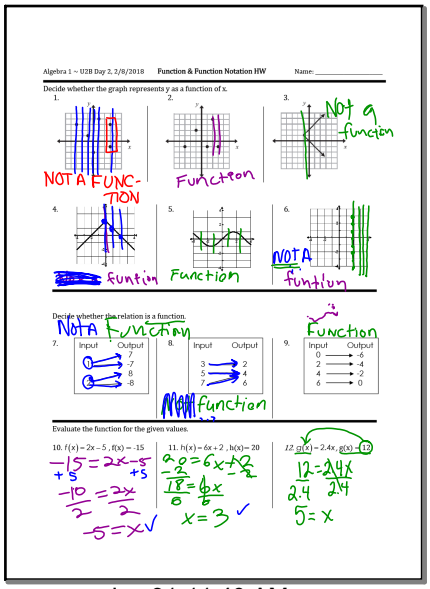


Jan 31-11:33 AM



Jan 31-11:40 AM

13. $f(x) = 2x^2 - 3$, f(-2)

f(-2) = 5

14. $h(x) = x^3 - 4x$, f(2)

f(2) = 0

15. $f(x) = (x+2)^2 - 6$, f(3)

f(x) x=3
f(3)=(3+2)²-6
f(3)=(5)²-6
f(3)=25-6
f(3)=19

If $f(x) = 2x - 3$, $g(x) = x^3 - 2$, and $h(x) = x^2 - 3x + 5$, find each of the following:

16. f(4) =

f(4) = 5

17. h(-3) =

h(-3) = 23

18. g(-2) =

g(x)=x³-2
g(-2)=(-2)³-2
g(-2)=-8-2
g(-2)=-10

Jan 31-11:40 AM

Explore the internet to locate 3 examples of functions & 3 non-examples of functions

Jan 31-11:42 AM

February 7, 2019 Thursday

Define the following vocab:
Domain, range, slope, end behavior, x-intercept, y-intercept. Include a picture fore each.

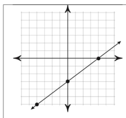
Jan 31-11:42 AM

Algebra 1 ~ U2B Day 2, 2/9/2018 — Characteristics of Linear Functions Notes

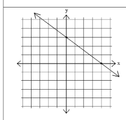
Words to know:

- Domain: ____________
- Range: ____________
- Interval of Increase (______ slope) & Decrease (______ slope): ____________
- End Behavior: ____________
- x-intercept(s): ____________
- y-intercept: ____________

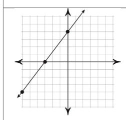
Examples:



Domain: x-intercept:
Range: y-intercept:
Interval:
End Behavior:
As x→−∞, f(x) → ______
As x→∞, f(x) → ______



Domain: x-intercept:
Range: y-intercept:
Interval:
End Behavior:
As x→−∞, f(x) → ______
As x→∞, f(x) → ______



Domain: x-intercept:
Range: y-intercept:
Interval:
End Behavior:
As x→−∞, f(x) → ______
As x→∞, f(x) → ______

Jan 31-11:44 AM

Average Rate of Change (AROC) Notes

Today's Question: How do we find the rate of change of a function? (MM1A1g)

Rate of Change

- The rate of change is the ratio of the change of one quantity to a change in another quantity.
- Positive ~ ____________
- Negative ~ ____________
- Which function has a constant rate of change? ____________
- Horizontal Lines ~ ____________
- Vertical Lines ~ ____________

Constant Rate of Change

The **slope** of a non-vertical line is the ratio of the vertical (change ______) to the horizontal (change ________) between any two points on the line.

$$m = \frac{change\ in\ y}{change\ in\ x} = \frac{rise}{run} = \_\_\_\_\_\_\_\_$$

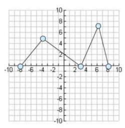
Example 1: Find the slope between (2, 4) and (4, 8).

Example 2: The table shows the amount of water evaporating from a swimming pool on a hot day. Find the rate of change between 2 hours and 6 hours.

Time (hours)	2	6	12
Gallons evaporated	4.5	13.5	27

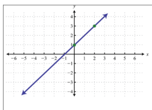
Example 3: Find all rates of change between the points, then determine which has the greatest rate of change?

What is the value?

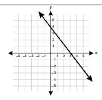


Jan 31-11:44 AM

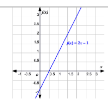
Algebra 1 ~ Day 2, 2/9/2018 — Characteristics of Linear Functions HW — Name ____________



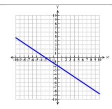
Domain: x-intercept:
Range: y-intercept:
Interval:
End Behavior:
As x→−∞, f(x) → ______
As x→∞, f(x) → ______



Domain: x-intercept:
Range: y-intercept:
Interval:
End Behavior:
As x→−∞, f(x) → ______
As x→∞, f(x) → ______



Domain: x-intercept:
Range: y-intercept:
Interval:
End Behavior:
As x→−∞, f(x) → ______
As x→∞, f(x) → ______



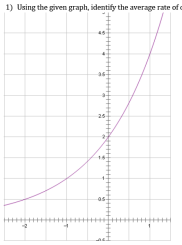
Domain: x-intercept:
Range: y-intercept:
Interval:
End Behavior:
As x→−∞, f(x) → ______
As x→∞, f(x) → ______

Jan 31-11:45 AM

Average Rate of Change HW

Directions. Identify the average rate of change for the given intervals.

1) Using the given graph, identify the average rate of change over the given intervals.



a) x = -2 to x = -1.

b) x = -1 to x = 0.

c) x = 0 to x = 1.

d) x = -2 to x = 1.

2) Using the given table, identify the average rate of change over the given intervals.

x	y
-1	3
0	4
1	6
2	10
3	18
4	34

a) x = -1 to x = 1.

b) x = 0 to x = 4.

c) x = 2 to x = 3.

d) x = -1 to x = 4.

Jan 31-11:45 AM

Draw a linear graph

(switch)

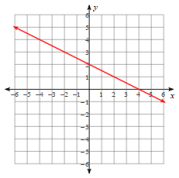
partner identify:

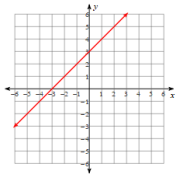
domain
range
x-intercept
y-intercept
end behavior

Jan 31-11:45 AM

February 8, 2019 Friday

Identify 4 characteristics for each graph.





Jan 31-11:54 AM

Algebra 1 ~ Day 3, 2/12/2018 **Arithmetic Sequences Notes**

Arithmetic Sequences are _____.

The recursive formula is _____ **& helps you find** _____.

The explicit formula is _____ **& helps you find** _____.

Examples: Find the common difference, then write the recursive formula & the explicit formula.

	Common Difference	Recursive Formula	Explicit Formula
27, 31, 35, 39, ...			
4, −3, −10, −17, ...			

Find the first five terms of the arithmetic sequence defined as follows:

$a_n = 2.7n + 0.5$

Find the first five terms of the arithmetic sequence defined as follows:

$a_n = a_{n-1} - 22;\ a_1 = 18$

You have read 25 pages of a book. You plan to read an additional 10 pages each night.

a. List the first five terms of the sequence.

b. Write the explicit formula to represent the number of pages you will read after n nights.

You are going on vacation. You have $105 to bring with you. You expect to spend $15 each day. You want to have $30 remaining at the end of the vacation.

a. Write an explicit formula to represent this scenario.

b. For how many days can you spend $15 each day?

Jan 31-11:58 AM

Even and Odd Functions Notes

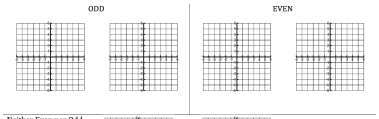
GRAPHICALLY:

A function is _____ if _____

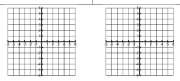
A function is _____ if _____

Draw an example of an odd and even function.

ODD EVEN



Neither Even nor Odd:



ALGEBRAICALLY

A function is _____ all _____

A function is _____ all _____

A function is _____ all _____

***BE CAREFUL* because -8 is an EVEN EXPONENT. (-8 can be written with a variable → $-8x^6$ which makes it an even exponent!)**

Examples:

Even	Odd	Neither

Jan 31-11:58 AM

Algebra 1 ~ Day 3, 2/12/2018 **Arithmetic Sequences HW** **Name** _____

1. Write the recursive and the explicit formula for the sequence: 4, 7, 10, 13, 16, 19

2. What is the common difference for the following sequence: -5, -12, -19, -26

3. The first five terms of a sequence are 2, 12, 22, 32, ...

a) What is the recursive formula for the sequence?

b) Write the explicit formula for the sequence.

c) What is the 30th term in the sequence? $a_{30} =$

4. You have donated $100 to a charity. You plan to donate an additional $15 each month.

a) Write the first five terms of the sequence.

b) Write an explicit formula to represent the sequence.

5. An arithmetic sequence is given by the following table. Write the recursive and explicit formula.

n	1	2	3	4	5
a_n	7	10	13	16	19

6. An arithmetic sequence is given by the following formula: $a_n = a_{n-1} + 7,\ a_1 = 2.$

a) Find the first 5 term of the sequence.

Jan 31-11:59 AM

Even/Odd Functions HW/Practice

Tell whether the function is even, odd, or neither.






$f(x) = x^2 - x^3$

$f(x) = -x^3 + 2x$

$f(x) = x^3 + 4x + 1$

$f(x) = \frac{1}{2}x^4 + 9$

$f(x) = 5x + 1$

$f(x) = 5$

Can a linear function ever be even or odd? If so, sketch an example.

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