

PiecewiseSchedule - Word

FILE HOME INSERT DESIGN PAGE LAYOUT REFERENCES MAILINGS REVIEW VIEW DESIGN LAYOUT

Clipboard Font Paragraph Styles Editing

Times New Roman 12

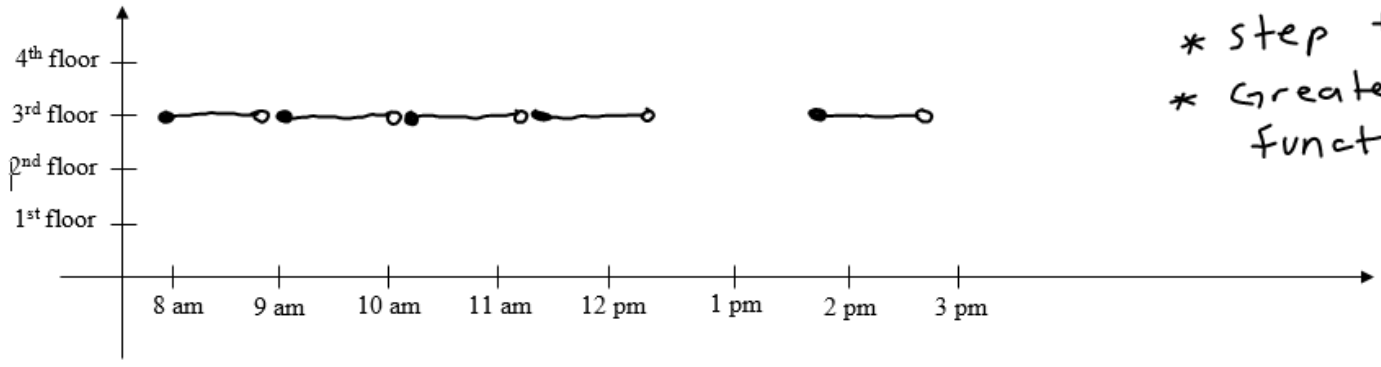
Find Replace Select

Honors Advanced Algebra
Piecewise Schedule: An Introduction

Name: Mr. B.

Using the graph below, draw a function that represents the floor you are on throughout the school day. The horizontal axis represents time and the vertical axis represents the floor. You may need to use the bell schedule at the bottom left of this page.

1)



* step function
 * Greatest integer function

Period		Time
0		
1		8:00 – 9:00
2		9:05 – 10:05
3	A	10:10 – 10:40
	B	10:45 – 11:15
4	A	11:20 – 11:50
	B	11:55 – 12:25
5	A	12:30 – 1:00
	B	1:05 – 1:35
6		1:40 – 2:40
7		2:45 – 3:30

2) Using the graph above, finish this expression for a piecewise relation that represents h , for floor height.

	Floor	Time Condition
$h(t) =$	3	$t = 1^{\text{st}}$ Period
$h(t) =$	3	$t = 2^{\text{nd}}$ Period
$h(t) =$	3	$t = 3^{\text{rd}}$ Period
$h(t) =$	3	$t = 4^{\text{th}}$ Period
$h(t) =$	3	$t = 5^{\text{th}}$ Period
$h(t) =$	3	$t = 6^{\text{th}}$ Period

Instruction Device Manager
 Mobi Luk Connect

PiecewiseSchedule - Word

FILE HOME INSERT DESIGN PAGE LAYOUT REFERENCES MAILINGS REVIEW VIEW DESIGN LAYOUT

Clipboard Font Paragraph Styles Editing

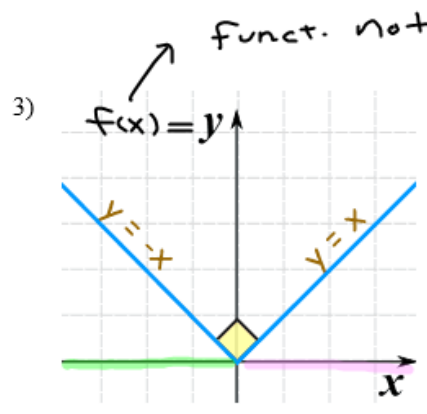
Times New Roman 12

Font: Bold, Italic, Underline, Text Color, Background Color, Paragraph: Bullets, Numbering, Indentation, Paragraph Spacing, Text Alignment, Text Direction, Text Orientation, Text Wrapping, Text Effects, Text Color, Background Color, Paragraph: Bullets, Numbering, Indentation, Paragraph Spacing, Text Alignment, Text Direction, Text Orientation, Text Wrapping, Text Effects, Text Color, Background Color

Styles: AaBbCcI, AaBbCcI, AaBbCcI, AaBbCcI, AaB, AaBbCcD, AaBbCcI, AaBbCcI

Find, Replace, Select

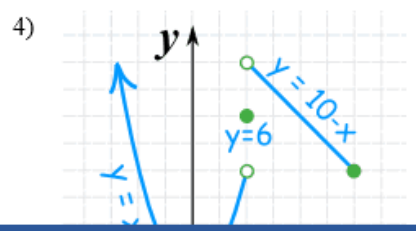
Using the graphs below develop the conditional statements that define them by filling in the blanks.



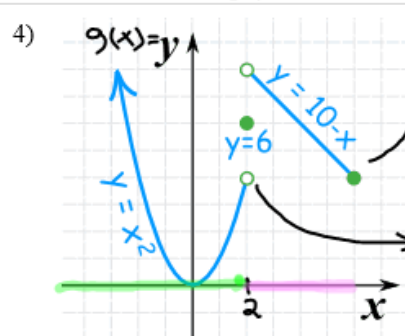
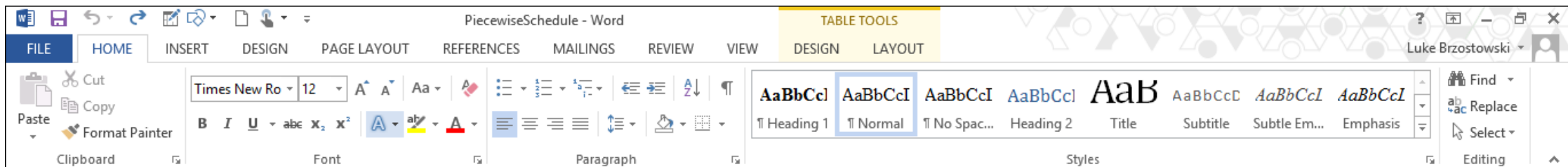
	Value	Condition
$f(x) =$	$-x$	$x < 0$
$f(x) =$	x	$x \geq 0$

0 is NOT included

" \geq " # 0 is included



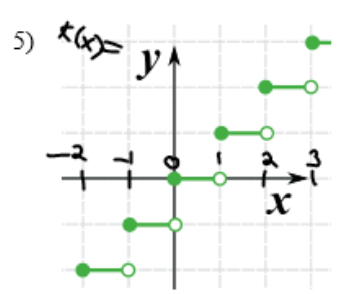
	Value	Condition
$g(x) =$	x^2	
		$x = 2$
	$10 - x$	



	Value	Condition
$g(x) =$	x^2	$x < 2$
$g(x)$	6	$x = 2$
$g(x)$	$10 - x$	$2 < x \leq 6$

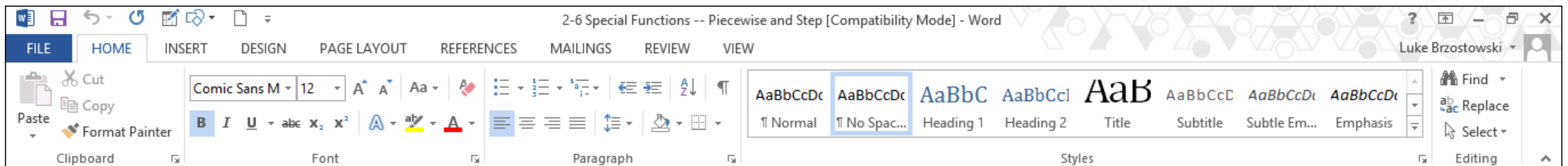
closed circle, need = sign

open circle means no equal sign



Step Function

	Value	Condition
$k(x) =$	-2	$-2 \leq x < -1$
$k(x)$	-1	$-1 \leq x < 0$
$k(x)$	0	$0 \leq x < 1$
$k(x)$	1	$1 \leq x < 2$
$k(x)$	2	$2 \leq x < 3$
$k(x)$	3	$3 \leq x < 4$



**Honors Advanced Algebra
Special Functions (Piecewise)**

Date: 9/12

Target 1A. Graph, transform and identify key features of absolute value functions

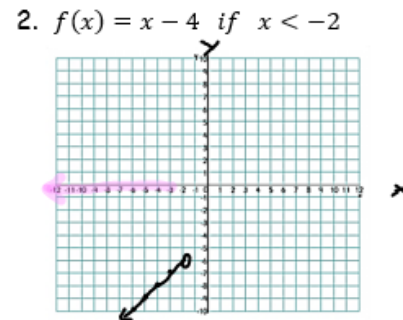
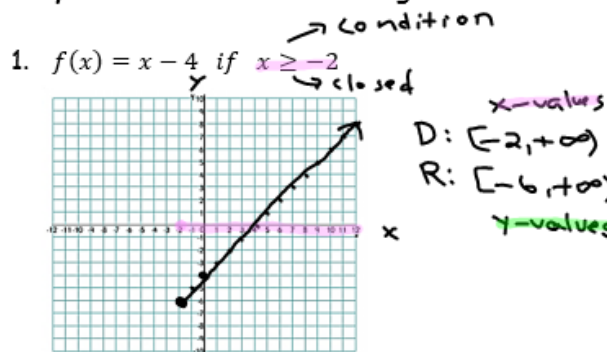


Piecewise Function: a function that is written using two or more expressions.

Before we work with piecewise & step functions, let's graph some equations with given conditions.

Graph each functions with its given condition. State the domain and range of each.

$y = x - 4$
slope: $\uparrow \rightarrow$
y-int: -4



$y = x - 4$
slope: $\uparrow \rightarrow$
y-int: -4

D: $(-\infty, -2)$
R: $(-\infty, -6)$

3. $f(x) = -\frac{1}{3}x + 6$ if $x \leq 3$

4. $f(x) = -\frac{2}{3}x - 2$ if $x > 0$

2-6 Special Functions -- Piecewise and Step [Compatibility Mode] - Word

FILE HOME INSERT DESIGN PAGE LAYOUT REFERENCES MAILINGS REVIEW VIEW

Comic Sans M 12 A A Aa A

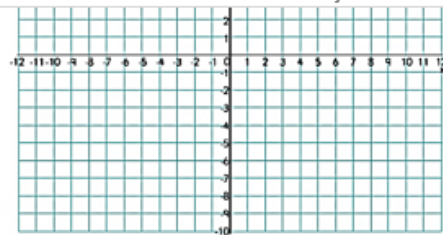
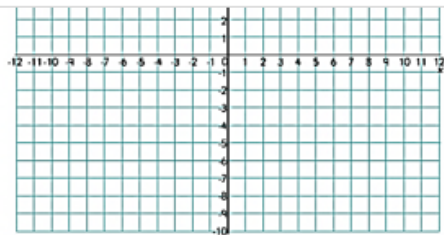
B I U abc x₂ x² A ab A

Clipboard Font Paragraph Styles

AaBbCcDc AaBbCcDc AaBbCc AaBbCc AaB AaBbCcD AaBbCcDc AaBbCcDc

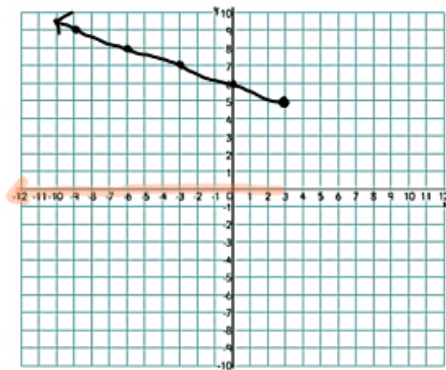
Normal No Spac... Heading 1 Heading 2 Title Subtitle Subtle Em... Emphasis

Find Replace Select Editing



3. $f(x) = -\frac{1}{3}x + 6$ if $x \leq 3$

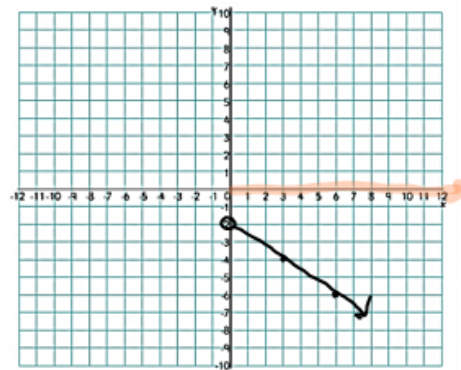
Slope: $-\frac{1}{3}$
y-int: 6



D: $(-\infty, 3]$
R: $[-5, +\infty)$

4. $f(x) = -\frac{2}{3}x - 2$ if $x > 0$

slope: $-\frac{2}{3}$
y-int: -2



D: $(0, +\infty)$
R: $(-\infty, -2)$

5. $f(x) = 3$ if $x \leq -5$



6. $f(x) = -2x + 5$ if $-1 \leq x < 4$



2-6 Special Functions -- Piecewise and Step [Compatibility Mode] - Word

FILE HOME INSERT DESIGN PAGE LAYOUT REFERENCES MAILINGS REVIEW VIEW

Comic Sans M 12 A A Aa A

B I U abc x₂ x² A ab A

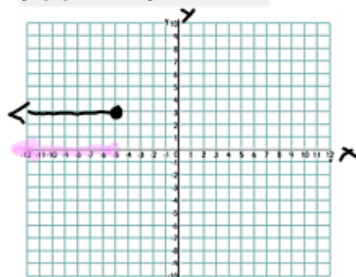
Clipboard Font Paragraph Styles

AaBbCcDc AaBbCcCc AaBbCc AaBbCcC AaB AaBbCcC AaBbCcC AaBbCcC AaBbCcC

Normal No Spac... Heading 1 Heading 2 Title Subtitle Subtle Em... Emphasis

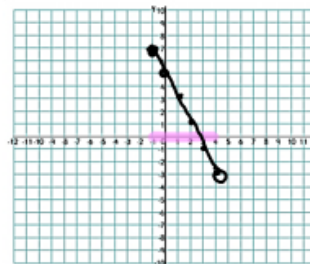
Find Replace Select Editing

5. $f(x) = 3$ if $x \leq -5$



D: $(-\infty, -5]$
R: $\{3\}$

6. $f(x) = -2x + 5$ if $-1 \leq x < 4$



$y = -2x + 5$
slope: $-2 \downarrow$
y-int: $+5$

No arrows!

D: $[-1, 4)$
R: $(-3, 7]$

Graph each of the following piecewise functions. State the domain and range of each piecewise function.

7. $f(x) = \begin{cases} x - 4, & x < 2 \\ 1, & x \geq 2 \end{cases}$



8. $f(x) = \begin{cases} x & \text{if } x < -3 \\ 2 & \text{if } -3 \leq x < 1 \\ -2x + 2 & \text{if } x \geq 1 \end{cases}$

