Blue & Gold Day Lesson 2-2

10:04 AM

Friday, September 20, 2019

Remind App

On Remind App to enter into this course:

Enter this Number: 81010

Text this message: @d6dgeh

Do Now 9/20 & 9/23

$$\sqrt{2k^2 + 17} - x = 0$$

If $k > 0$ and $x = 7$ in the equation above, what is the value of k ?

A) 2

B) 3

C) 4

D) 5

1-1 to 1-2 Test Makeup

Tuesday, September 24, 2019 3:26 AM

To get some points back on old quiz, take the 1-1 to 1-2 Practice Test on Focus. Show your work/explanations of the problems on a sheet of paper (or type up) and submit a copy online. You can retake the practice test a few times. I will average your score with the old quiz.

Assigned HW

Friday, September 20, 2019 3:22 AM

-Lesson 2.3 Notes (focus) due 9/23 (Blue) & 9/24 (Gold)

-2.2 practice sheet (focus) due 9/23 (Blue) & 9/26 (Gold)

Lesson 2-2

Essential Question: What key features can you determine about a quadratic function from an equation in standard form?

Learning Goals

- Write and graph quadratic functions in standard form

Lesson 2-2 Class Notes

Friday, September 20, 2019 6:31 AM

Take out Lesson 2-1 & 2-2 Notes

Take out sheet of paper, label it Lesson 2-2 Class Notes

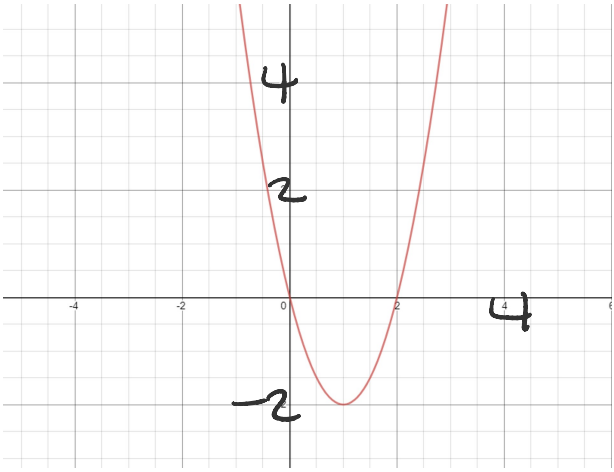
Write down question (or summary of question), then final answer

Write down notes covered in class

Question 1

Friday, September 20, 2019 3:30 AM

What is the quadratic function for the graph shown?



A. $-(x+1)^2-2$ $B.(x+1)^2-2$

C. $(x-1)^2-2$ $D.\ 2(x-1)^2-2$

Simplify the function in vertex form:

Standard Form and Finding Vertex

Friday, September 20, 2019 3:36 AM

Question 2

Friday, September 20, 2019 3:51 AM

Simplify: $-\frac{\frac{1}{2}}{2\left(\frac{1}{5}\right)} =$

A) $-\frac{5}{4}$ B) -5 $C)$ $-\frac{1}{10}$ $D)$ $-\frac{1}{5}$

Question 3

Find the vertex of the function f(x) = $2x^2 + 12x - 1$

Question 4

Friday, September 20, 2019 3:42 AM

3:30 AM

Write previous problem in vertex form:

A) $f(x) = 2(x+3)^2 - 19$ $B)$ f(x) = $-(x-3)^2 + 5$

C) f(x) = $2(x-2)^2 + 5$ $D)$ $f(x) = 5(x+3)^2 - 15$

Question 5

Friday, September 20, 2019 3:45 AM

3:30 AM

What is the axis of symmetry of $f(x) = x^2 - 2x + 1$?

A. x = -1

B. x = 1

C. y = 0

D. y = 1

Question 6

3:30 AM

What is the y-intercept of the previous function?

A. (0, 1) B. (1, 0) C. (-1, 0) D. (0, -1)

3:30 AM

Graph the function.

Summarize

$$F(x) = 2(x-3)^2 - 1$$

Vertex and General Form Coloring Activity

Friday, September 20, 2019 6:35 AM

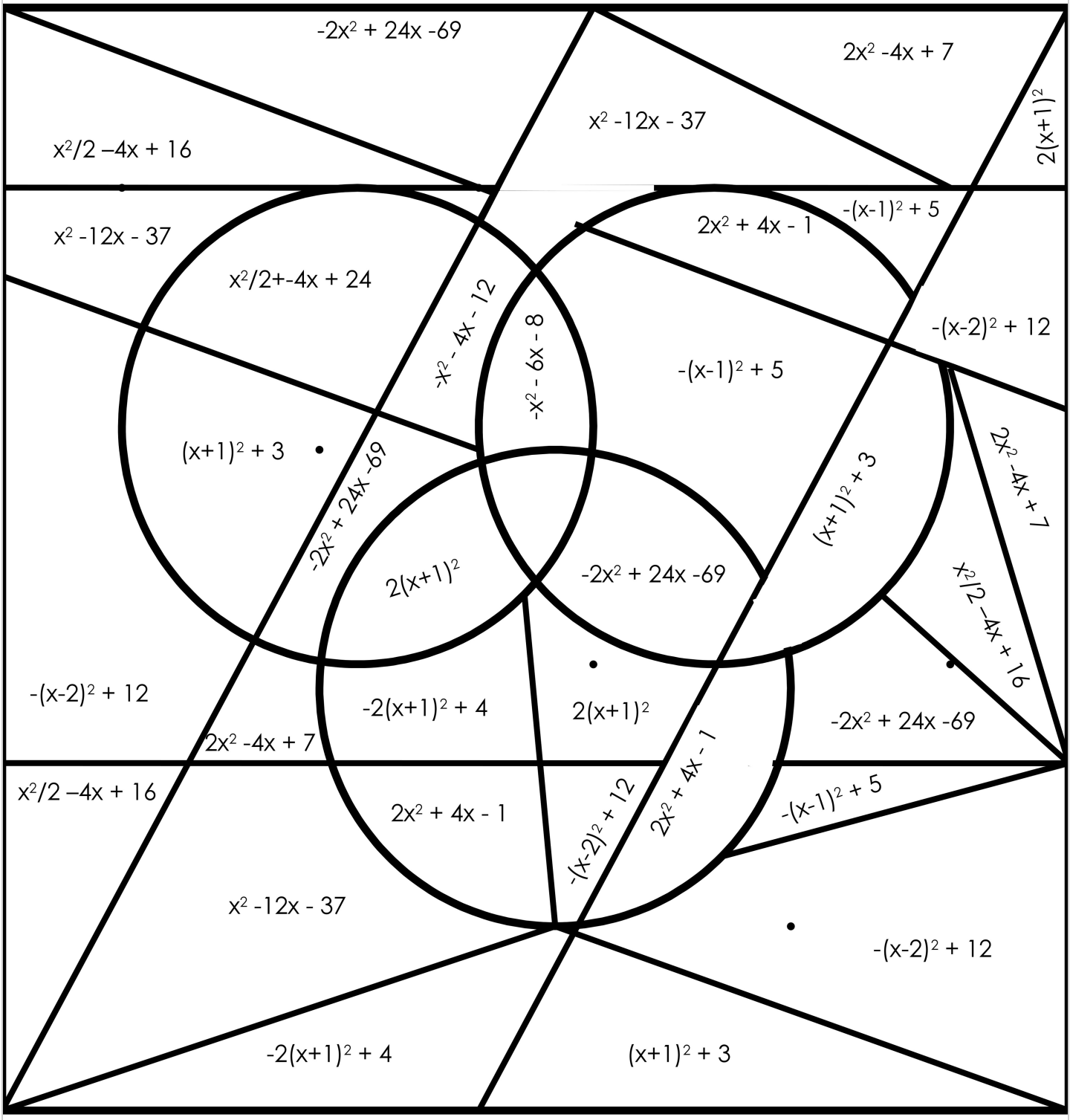
Vertexand…

Functions: Converting between Vertex and General Form: Color by number

NAME_____

DATE_____

Functions: Converting between Vertex and General Form



Functions: Converting between Vertex and General Form: Color By Number

NAME_____

Directions:

•Convert the given quadratic functions.

•Find the solutions on the design and color accordingly.

Quadratic Function in General Form	Quadratic Function in Vertex Form	Color
$x^2 + 2x + 4$		Blue
$-x^2 + 2x + 4$		Purple
$2x^2 + 4x + 2$		Green
$-2x^2 + 4x + 2$		Blue
$-x^2 + 4x + 8$		Green

Quadratic Function in Vertex Form	Quadratic Function in General Form	Color
$-(x+2)^2-8$		Purple
$2(x+1)^2-3$		Blue
$-2(x-6)^2 + 3$		Purple
$(½)(x-4)^2 + 8$		Green
$(½)(x+4)^2 + 16$		Blue
$-(x+3)^2 + 1$		Blue
$-(x+6)^2 -1$		Purple
$2(x-1)^2 + 5$		Purple

Functions: Converting between Vertex and General Form: Color By Number

ANSWER KEY

Directions:

•Convert the given quadratic functions.

•Find the solutions on the design and color accordingly.

Quadratic Function in General Form	Quadratic Function in Vertex Form	Color
$x^2 + 2x + 4$	$(x+1)^2 + 3$	Blue
$-x^2 + 2x + 4$	$-(x-1)^2 + 5$	Purple
$2x^2 + 4x + 2$	$2(x+1)^2$	Green
$-2x^2 + 4x + 2$	$-2(x+1)^2 + 4$	Blue
$-x^2 + 4x + 8$	$-(x-2)^2 + 12$	Green

Quadratic Function in Vertex Form	Quadratic Function in General Form	Color
$-(x+2)^2-8$	$-x^2 - 4x - 12$	Purple
$2(x+1)^2-3$	$2x^2 + 4x - 1$	Blue
$-2(x-6)^2 + 3$	$-2x^2 + 24x -69$	Purple
$(½)(x-4)^2 + 8$	$x^2/2 –4x + 16$	Green
$(½)(x+4)^2 + 16$	$x^2/2+-4x + 24$	Blue
$-(x+3)^2 + 1$	$-x^2 - 6x - 8$	Blue
$-(x+6)^2 -1$	$x^2 -12x - 37$	Purple
$2(x-1)^2 + 5$	$2x^2 -4x + 7$	Purple