

**Math 115 Section 03 (Barsamian) Quiz 2**  
Ohio University, Friday 17 September, 2004

Name (print): \_\_\_\_\_

Q2:  $\frac{\quad}{20}$  Attendance:  $\frac{\quad}{9}$  Quizzes:  $\frac{\quad}{40}$  Course:  $\frac{\quad}{49}$  Course Percentage:      %      Course Grade:

1 (Similar to exercise 1.4 #18 and #21.) Let  $y = 8 - x^3$ . Determine all intercepts and describe any symmetry in the corresponding graph. (Note that it is not necessary to draw the graph in order to do this problem!)

2 Let  $f(x) = x^2$ .

- a) Draw a graph of  $f$ , being sure to label the coordinates of key points.
- b) Draw the secant line segment joining the points on the graph where  $x = -3$  and  $x = -2$ .
- c) Write down the mathematical expression that represents the slope of this line segment. (Do not compute the value yet.)
- d) Compute the value of the expression from part (c).
- e) In class, we defined a certain phrase by saying that it means the same thing as the mathematical expression in part (c). What is that phrase?

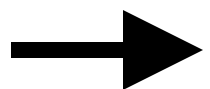


3 (Similar to 1.7 #36)

a) Find the slope-intercept equation of the line that passes through  $(3, 2)$  and is parallel to the line  $x + 3y = 15$ .

b) Find the slope-intercept equation of the line that passes through  $(3, 2)$  and is perpendicular to the line  $x + 3y = 15$ .

4 (Similar to 1.8 #7) Draw the graph of  $f(x) = (x + 2)^2 - 5$  by using transformations of graphs. (You should draw three graphs.)



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2 Let  $f(x) = x^2$ .

- Draw a graph of  $f$ , being sure to label the coordinates of key points.
- Draw the secant line segment joining the points on the graph where  $x = -3$  and  $x = 2$ .
- Write down the mathematical expression that represents the slope of this line segment. (Do not compute the value yet.)
- Compute the value of the expression from part (c).
- In class, we defined a certain phrase by saying that it means the same thing as the mathematical expression in part (c). What is that phrase?

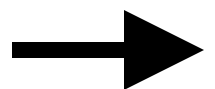


3 (Similar to 1.7 #36)

a) Find the slope-intercept equation of the line that passes through  $(3, 4)$  and is parallel to the line  $x + 3y = 12$ .

b) Find the slope-intercept equation of the line that passes through  $(3, 4)$  and is perpendicular to the line  $x + 3y = 12$ .

4 (Similar to 1.8 #7) Draw the graph of  $f(x) = (x - 2)^2 + 5$  by using transformations of graphs. (You should draw three graphs.)



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1 (Similar to exercise 1.4 #18 and #21.) Let  $y = 8 + x^3$ . Determine all intercepts and describe any symmetry in the corresponding graph. (Note that it is not necessary to draw the graph in order to do this problem!)

2 Let  $f(x) = x^2$ .

- Draw a graph of  $f$ , being sure to label the coordinates of key points.
- Draw the secant line segment joining the points on the graph where  $x = -2$  and  $x = 3$ .
- Write down the mathematical expression that represents the slope of this line segment. (Do not compute the value yet.)
- Compute the value of the expression from part (c).
- In class, we defined a certain phrase by saying that it means the same thing as the mathematical expression in part (c). What is that phrase?



3 (Similar to 1.7 #36)

a) Find the slope-intercept equation of the line that passes through  $(3, 5)$  and is parallel to the line  $x + 3y = 9$ .

b) Find the slope-intercept equation of the line that passes through  $(3, 5)$  and is perpendicular to the line  $x + 3y = 9$ .

4 (Similar to 1.8 #7) Draw the graph of  $f(x) = (x + 3)^2 - 4$  by using transformations of graphs. (You should draw three graphs.)



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1 (Similar to exercise 1.4 #18 and #21.) Let  $y = 8 + x^3$ . Determine all intercepts and describe any symmetry in the corresponding graph. (Note that it is not necessary to draw the graph in order to do this problem!)

2 Let  $f(x) = x^2$ .

- Draw a graph of  $f$ , being sure to label the coordinates of key points.
- Draw the secant line segment joining the points on the graph where  $x = 2$  and  $x = 3$ .
- Write down the mathematical expression that represents the slope of this line segment. (Do not compute the value yet.)
- Compute the value of the expression from part (c).
- In class, we defined a certain phrase by saying that it means the same thing as the mathematical expression in part (c). What is that phrase?



3 (Similar to 1.7 #36)

a) Find the slope-intercept equation of the line that passes through  $(3, 7)$  and is parallel to the line  $x + 3y = 6$ .

b) Find the slope-intercept equation of the line that passes through  $(3, 7)$  and is perpendicular to the line  $x + 3y = 6$ .

4 (Similar to 1.8 #7) Draw the graph of  $f(x) = (x - 3)^2 + 4$  by using transformations of graphs. (You should draw three graphs.)

