

Homework 3

This needs to be turned in by: July 15, at the beginning of class. Please write your work and answers on a separate sheet of paper and box your final answers. Don't forget your name.

1. Study Guide, page 15 #5 C, D and F
2. Study Guide, page 15, #6
3. Study Guide, page 17 #3 (a), (b), and (d)
4. Study Guide, page 16 #1 (d) and (e)
5. Find the x -intercept(s) and y -intercept(s), if any, for each of the following:

(a) $3\sqrt{x} - 1 = y$
(b)

| | | | | | |
|-------|---|---|----|---|---|
| $x :$ | 1 | 2 | 0 | 3 | 4 |
| $y :$ | 5 | 0 | 13 | 3 | 2 |

(c)

| | | | | | |
|-------|---|---|---|---|---|
| $x :$ | 1 | 8 | 0 | 3 | 4 |
| $y :$ | 5 | 0 | 6 | 3 | 2 |

6. Study Guide, page 16, #2 (c) (e) and (f)
7. Study Guide, page 19, # 4
8. Is the following a function? Justify your answer.

| | | | | | | |
|-------|---|----|----|---|----|----|
| $x :$ | 3 | 4 | -1 | 6 | 3 | 9 |
| $y :$ | 9 | -1 | 0 | 1 | -9 | 18 |

9. State if the following are functions. Justify your answer:
(a) $x = 3$
(b) $y = 3$
(c) $y^2 + x^2 = 4$
(d) $y = x^2 - 1$

10. Study Guide, page 19 #5

11. Study Guide, page 18 #1 (A), (b), (C), (D), and (E)

12. Study Guide, page 20 #3 (A), (B), and (C)

13. Identify the domain of the following functions:

(a) $y = \frac{7}{x^2+x-20}$

(b) $y = \frac{7}{x^2+x-12}$

14. Identify the range of $y = x^2 + 10$

15. Study Guide, page 20, #1

16. Study Guide, page 20, #2

17. Study Guide, page 21, #4