

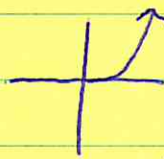
T/PC
Ch 2
Final Exam Review

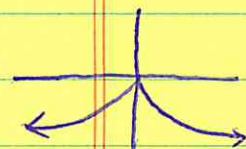
1. $f(x) = -x + 5$

2. $f(x) = -2(x+1)^2 - 2$

3. A rainfall of $4\frac{1}{2}$ inches produces 20.25 million mosquitoes

4. $h = \frac{k}{r^2}$

5.  not symmetrical w/ origin or y-axis
 $\therefore$ neither

6.  symmetrical over y-axis
 $\therefore$ even

7. 1. $W = \text{weight (g)}$ $s = \text{side length (cm)}$

2. $W = k s^3$

3. $375 = k(5)^3$ $375 = 125k$ $k = 3$

4. $W = 3 s^3$

5. $W = 3(4)^3$ $3(64)$ 192

6. The wt of a liquid in a $4 \times 4 \times 4$ cube is 192 g

8. neg, odd 
 $\lim_{x \rightarrow \infty} f(x) = \infty$, $\lim_{x \rightarrow -\infty} f(x) = -\infty$

9. pos, even 
 $\lim_{x \rightarrow \infty} f(x) = \infty$, $\lim_{x \rightarrow -\infty} f(x) = \infty$

10. $f(x) = x^3 - 4x^2 - 2x + 8$

11. The max volume is 2551.291 in³ by making the square 5.129 in per side (Include eqn, sketch window)

12. Yes (need work)

13. No (need work)

14. $\pm 1, \pm \frac{1}{2}, \pm 7, \pm \frac{7}{2}, \pm \frac{1}{7}, \pm \frac{1}{14}$

15. Yes (need syn div)

16. Yes (need syn div)