

Review #1 for Algebra 2 CRT

Answers

1. $x = 4, x = -10$

2. No Solution

3. $2 \leq x \leq 8$

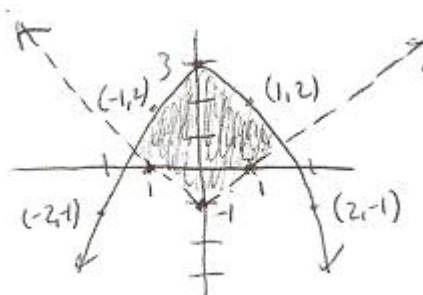
4. $x = 13$

5. $\frac{10x+9}{2(x+4)}$

6. $3x^{\frac{2}{3}}y^{\frac{7}{3}}$

7. $(0, 3), (2, 7)$

8.



9. \$14,000 at 5%
and \$6,000 at 8%

10a. $\frac{1}{5}$

b. 4

11a. 13

b. $\frac{35}{34} + \frac{21i}{34}$

12. 1.88 seconds

13a. $\frac{1 \pm \sqrt{33}}{8}$

b. $\frac{-3}{2} \pm \frac{i\sqrt{7}}{2}$

14. $-4 < x < 1$

15. $x^2 - 4x - 5 = 0$

16. $f(x) = 200 + 10.50x$

17a. Function

b. not function

c. not function

18. Domain $\{-2, -1, 3, 4, \}$, Range $\{-5, -2, 2, 7\}$, Inverse $\{(2, -1), (-2, 3), (-5, 4), (7, -2)\}$

19a. Domain: All reals
Range: $y \leq 5$

b. Domain: $-3 \leq x \leq 3$
Range: $0 \leq y \leq 3$

c. Domain: all reals
Range $y \geq -5$

20a. -3

b. $3x^2 + 2x - 5$

c. $6x^2 - 9$

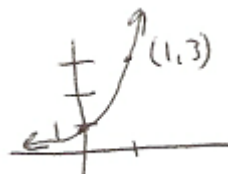
d. 71

e. $f^{-1}(x) = \frac{x+1}{2}$

21. $A = \$9968.61$

22. $K = .25$

23.



24. 2

25. $3 \ln a - 2 \ln b - 4 \ln c$

26. $\frac{\log 3}{\log 5}$

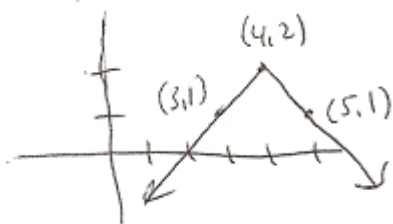
27.



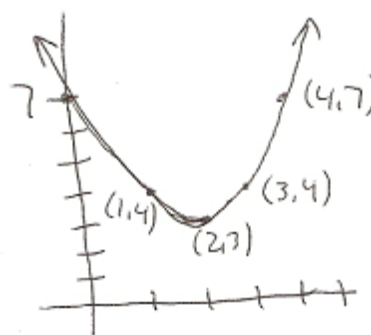
28a. $x = \frac{\ln 34}{2 \ln 5}$

b. $x = \frac{\ln \frac{a}{b}}{c}$

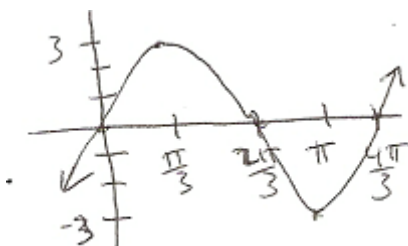
29.



30.



31.



32. Vertex (-1, -9)

33. 120°

34. $\frac{25\pi}{18}$

35a. 1

b. 0

c. $-\frac{1}{2}$

36a. $\theta = \frac{5\pi}{6}, \frac{7\pi}{6}, 150^\circ, 210^\circ$

36b. $\theta = \frac{\pi}{6}, \frac{5\pi}{6}, 30^\circ, 150^\circ$

37. $x = 1.2057$

38. $\frac{125\pi}{3} ft^2$

39. $\frac{14\pi}{3} cm$

40. Various answers

41. 120

42. 1287

43. 75

44. $\frac{1}{221}$

45. $\frac{14}{165}$

46. Mean: 50.33 Median: 52

Range: 58

Interquartile range 15

Standard Deviation: 15.5