

Math 1050, Fall 2001: Answer Key Version I

1. $4 \cdot 2^{1/3} + (\sqrt[3]{7} - \pi + 1)x + 3^{1/3} + 2^{2/3} + x^{1/3}$

2. $2x^3y^2z$

3. $\frac{16}{121}$

4. $\frac{5}{4}$

5. $[-9, 15]$

6. \Re

7. Delaney and Tom each work 9 hours. Brandy works 18 and Craig works 4.

8. $C = \frac{(A+B)}{2D-6}$

9. $\left(\frac{-5}{2}, \infty\right)$

10. $\frac{f(3)}{3} + [f(2)]^2 = 31$

11. $\frac{-1}{2+h}$

12. $y = \frac{1}{3}x - \frac{7}{3}$

13. $y = \frac{1}{2}x - \frac{5}{2}$

14. The side is $4\sqrt{3}$ inches.

15. $\{-1 \pm \sqrt{3}i\}$

16. Vertex(2,1). Opens $\bar{\text{down}}$ Intercepts : (0,-3)(3,0)(1,0)

17. $\frac{2}{x-1}$

18. $\left\{\frac{4}{3}\right\}$

19. $\left(0, \frac{9}{4}\right)$

20. $(-\infty, 1) \cup [4, \infty)$

21. a) $(-\infty, -1) \cup (-1, \infty)$

b) $(-\infty, 2)$

c) $f(-2) = 0, f(0) = 0, f(1) = 0$

22. $\{-2, 3\}$

23. a) $\log_2\left(\frac{1}{32}\right) = -5$

b) $\log_{27}\left(\frac{1}{3}\right) = \frac{-1}{3}$

c) $\log_5(125) = 3$

24. a) **1.5**

b) **.65**

c) **3.8**

25. $\{0, -2\}$

26. Opens up and down. **Vertices : (0,5), (0,-5), Center(0,0), a = 6.b = 5**

27. $\frac{-\pi}{2} < \sin\left(\frac{-\pi}{2}\right) < \log_{2\pi}(1) < \cos(1)$

28. a) $\frac{5\pi}{12}$ radians

b) $\frac{-\pi^2}{120}$ radians

29. $x = \frac{\sqrt{5}}{\sin(27^\circ)}$

30. Kevin's rate going to work was 30 mph.