

**MAT 1050 Final Exam Answer Key  
Winter 2003**

1.  $(5 - \sqrt{3} + \sqrt{2})x - 4 \cdot 3^{\frac{1}{5}} - 4^{\frac{2}{5}} + 7^{\frac{2}{5}}$

2.  $\frac{2yz^2}{x^4}$

3. **2**

4.  $-\frac{7}{2}$

5.  $\{ \}$

6.  **$[0,10]$**

7. There are 24 peanuts, 18 almonds, and 8 cashews.

8.  $w = \frac{2 - 3t}{tz - 1}$

9.  $(-\infty, -1) \cup (-1, 6) \cup (6, \infty)$

10. **22**

11.  $\frac{x + 4}{-2}$

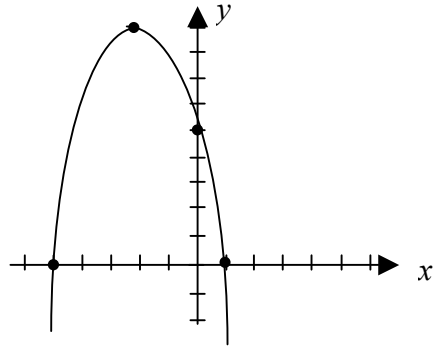
12.  **$x = 5$**

13.  $y = \frac{5}{3}x - \frac{13}{3}$

14. The diagonal is  $\sqrt{45}$  feet long.

15.  $\{0, 2 \pm 2i\}$

16. Vertex  $(-2, 9)$  Intercepts  $(-5, 0), (0, 5), (1, 0)$



17.  $-3(5 + x)$

18. There are no numbers such that  $f(x) = 2$ .

19.  $(-\infty, -2) \cup (-2, 3)$

20.  $(-\infty, \frac{3}{2}) \cup [3, \infty)$

21. a)  $(-\infty, 2) \cup (2, 3) \cup (3, \infty)$  b)  $f(-3) = 2$  c)  $f(-1) = -1$  and  $f(6) = -1$

22. The x intercepts are  $(-5, 0)$  and  $(1, 0)$ .

23. a)  $-2$  b)  $\frac{1}{3}$  c)  $-\frac{1}{4}$

24. a) 2.6 b) 2.3 c) 1.4

25.  $\{-4, 4\}$

27.  $\cos(3.2) < \sin(3.2) < \tan(\pi) < \log_7(9)$

28. a)  $\frac{7\pi}{9}$  radians b) 2 radians

29.  $x = \frac{7}{\sin(37^\circ)}$

30. Daniela's speed was 12.5 meters/minute.