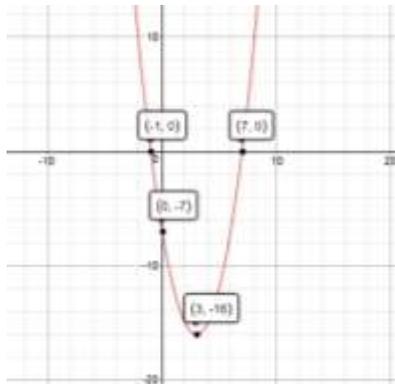


# Math 1050 Final Exam Answer Key

Fall 2015

1.  $a^3 + \frac{4}{3}b^2 + (\pi - 3)\sqrt{2} + \frac{2}{3}b^3$
2.  $\frac{9z^7}{x^3}$
3.  $2 - 8\sqrt{6}$
4.  $\frac{13}{11}$
5. **No Solution**
6.  $[-15, 11]$
7. Eric has 106 marbles, Kenny has 53 marbles and Stan has 39 marbles.
8.  $D = \frac{AC}{2-A^2}$
9.  $(2, \infty)$
10. a.)  $\frac{1}{3}$     b.)  $\frac{\sqrt{3+a}}{9-6a+a^2}$
11.  $4x - 2h - 7$
12.  $x = -1$
13.  $y = -\frac{1}{2}x - 7$
14. The height of the antenna is  $10\sqrt{2}$  ft.
15.  $x \in \{-3 + i\sqrt{3}, -3 - i\sqrt{3}\}$
16. Vertex  $(3, -16)$  opens up, y-intercept:  $(0, -7)$ , x-intercepts:  $(-1, 0)$  and  $(7, 0)$



17.  $\frac{-x}{x+3}$

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Fall 2015

18.  $x = 6$

19.  $\{0\} \cup [4, \infty)$

20.  $(2, 5]$

21. a.) Domain  $(-\infty, 3) \cup (3, \infty)$

b.) Range  $(-4, \infty)$

c.)  $g(-3) = 0, g(4) = 0$

d.)  $g(0) = -2$

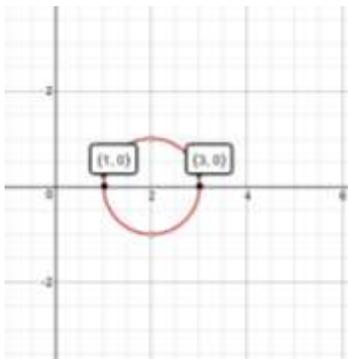
22.  $t = 81$

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

24. a.) -0.5   b.) 3.6   c.) 1.7

25.  $x = -1$

26. Circle with center  $(2, 0)$   $r = 1$



27.  $-\sqrt{2} < \sin(6.2) < \tan(3\pi) < \cos(6.2)$

28. a.)  $\frac{\pi^2}{60}$  radians   b.)  $\frac{1800^\circ}{\pi}$

29. a.)  $\frac{2\sqrt{6}}{7}$    b.)  $\frac{2\sqrt{6}}{5}$

30. During the first 10 miles, Lila drove 40 mph.