

# Math 1050 Final Exam Answer Key

Winter 2017

1.  $5m^x + (\sqrt{7} - \pi) m^2 - 7y^x$

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

3. 24

4.  $\frac{7}{17}$

5. No solution.

6. Joe took 18 3-credit classes and 10 4-credit classes.

7.  $c = \frac{b}{a-b}$

8.  $(-\infty, 5)$

9. 24

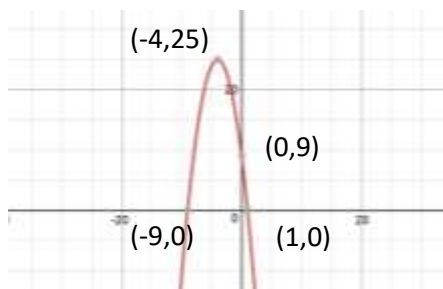
10.  $5 - 2x - h$

11.  $y = 2x - 10$

12. The perimeter of the rectangle is 10 feet.

13.  $\left\{-\frac{2}{5} \pm \frac{1}{5}i\right\}$

14. Vertex  $(-4, 25)$  opens down, y-intercept:  $(0,9)$ , x-intercepts:  $(-9,0)$  and  $(1,0)$



15.  $\frac{2}{x}$

16.  $x = 39$

17.  $(-\infty, -1) \cup [9, \infty)$

18.a.) Domain  $(-\infty, 1) \cup (1, \infty)$

b.) Range  $[-2, \infty)$

c.)  $x \in \{-3, 3\}$

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

19.  $\{2, 12\}$

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

21.  $\{8\}$

22.  $-\frac{\pi}{3} < \cos(3) < \tan(\pi) < \sin(3)$

23. a.)  $\cos(\angle A) = \frac{5}{\sqrt{29}}$    b.)  $\tan(\angle B) = \frac{5}{2}$

24. The speed of the current is 4 mph.