

Math 1050 Final Exam Answer Key

Winter 2018

1. $(3 - \pi)\sqrt{x-1} - 4y^2 - 2y + 2^y$

2. $\frac{a^2}{2b^2c^4}$

3. $17\sqrt{2} - 24$

4. $\frac{100}{81}$

5. $x \in \{2,4\}$

6. Pat answered 17 questions correctly.

7. $m = \frac{2r}{r^2+k}$

8. $(-\infty, -3) \cup (-3, 3) \cup (3, \infty)$

9. 252

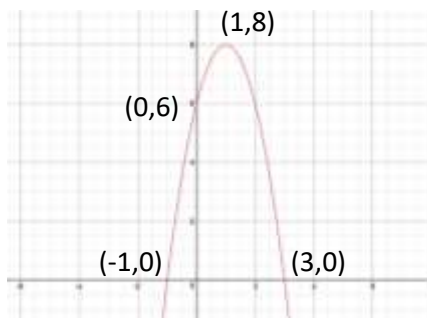
10. $-6x - 3h$

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

12. The ladder reaches a height of exactly $3\sqrt{15}$ feet.

13. $\left\{\frac{1}{2} \pm \frac{3}{2}i\right\}$

14. Vertex (1, 8) opens down, y-intercept: (0,6), x-intercepts: (-1,0) and (3,0)



15. $\frac{2a^2}{(a+b)^2}$

16. $x = -\frac{11}{2}$

17. $(-7, -2] \cup (3, 7]$

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

b.) Range $(-\infty, 0) \cup (0, \infty)$

c.) $f(0) = 2$

d.) $x = -2$

19. $\left\{\frac{1}{25}, \frac{1}{9}\right\}$

20. a.) 2.365 b.) -0.683 c.) 2.73

21. $\{6\}$

22. $\log_3\left(\frac{1}{9}\right) < \cos(182^\circ) < \tan(-3\pi) < \sin\left(\frac{\pi}{2}\right)$

23. a.) $\tan(\angle A) = \frac{11}{8}$ b.) $\cos(\angle B) = \frac{11}{\sqrt{185}}$

24. The speed of the train is 60 mph.