

Final Review #2 Key

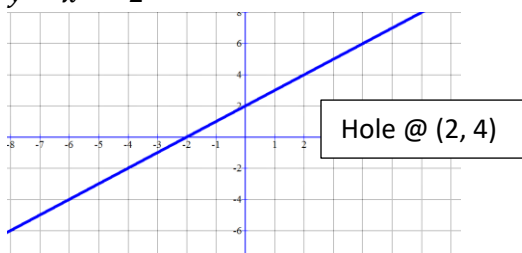
1. -120
2. $y = x^3 + 1$ and $y = -2x + 6$
3. 10, Yes 5 is an extraneous solution.
4. max: (1.11, 0.058) / min: (0, -2)
5. $\frac{1}{x-2}$
6. 16
7. $x = -18$
8. $y = -\sqrt{2x+5}$, $y = \sqrt[3]{x+5}$, and $y = |x-6|$
9. $x = \frac{1}{3}$
10. $D: \mathbb{R}$ $R: y \geq 0$
11. $x = -2.42$
12. 21
13. VA: $x = -5$
HA: None
SA: $y = 3x - 9$

14. $\frac{1}{7}$

15. $\downarrow \uparrow$

16. $y = x^3 - 2$

17.



18. 21.6

19. $r = 0.058$

20. $\frac{\pi}{6}, \frac{5\pi}{6}$

21. $\frac{\pi}{3}, \frac{5\pi}{3}$

22. $\frac{2\pi}{3}, \frac{4\pi}{3}, 0$

23. $\frac{\cos x}{\sin^2 x}$

24. III

25. negative

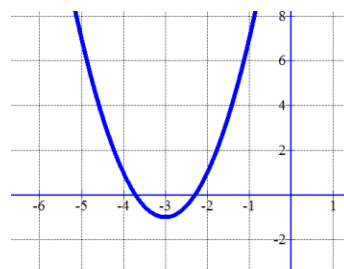
26. $150^\circ, 210^\circ$

27. 1

28. $y = \tan \frac{1}{2} \left(x + \frac{\pi}{2} \right) + 2$

Secondary 3 Honors

29.



30. $(3x + 1)(x^2 - 6)$

31. $(6x + 1)(x - 2)$

32. $\frac{1}{2}(\log x - \log y - 2 \log z)$