Pi-Rates Spring 2025
Competition Answers

0. 3
1. 9
2. 6 un^2
3. $x^3 + 5x^2 - 41x - 45$
4. 135 liters
5. $16 + x^{11}$
6. 115°
7. Median = 5
8. 2/3 or 0.666
9. 21/29 or 0.724
10. 5/2 or 2.5 seconds
11. -60
12. 7 coins
13. b = 12
14. -3
15. Mode = 3
16. 78.5 or 157/2
17. x-int = -6/5 or -1.2
18. Smallest integer = 94
19. n = 4
20. x-intercept = 4 or (4,0)
21. Sum = 42
22. 0
23. x = 6
24. 44
25. 291 miles
26. 97%
27. 160°
28. 15/4 or 3.75
29. -4
30. 40 un^2
31. $6x^2 - 7x - 24$
32. 3 discontinuities
33. 300
34. $6xy^2$
35. Mean = 31
36. 40.82 or 2041/50 un
37. y-intercept = 2 or (0,2)
38. (5,0) or x = 5
39. 294 un^2
40. x = -4, x = -2, x = 0 or (-4,0),(-2,0),(0,0)
41. x = 81
42. 108π
43. r > 30
44. 1980 un^3
45. 300 un^2
46. 7/25 or 0.28
47. (2/3,5/3) or (0.666, 1.666) or x = 2/3, y = 5/3
48. 2 hours
49. 66°
50. 36π
51. Positive infinity or ∞