

Pi-Rates Interscholastic Spring 2024  
Competition Answers

1. 150
2.  $\frac{4}{3}$
3.  $c = 15$
4. \$45 per hour
5.  $x = -3$
6. 25
7.  $x > \frac{5}{2}$  OR  $x > 2.5$
8.  $x = 5$
9.  $35^{\circ}\text{F}$
10. 67
11. 60 weeks
12. 73
13. 35
14.  $1331 \text{ un}^3$
15.  $24x^3 + 48x^2$
16. 12.2
17. \$3.08
18.  $152 \text{ un}^2$
19. 5 red tickets and 35 blue tickets
20. 63
21. 150 minutes
22.  $x = \frac{14}{5}$  OR  $x = 2.8$
23. 3
24. (16,27)
25. (0, -20)
26.  $-16x + 25$
27. \$196000
28.  $22 + \frac{1}{4}$
29. 54
30.  $10x - 20$
31. 1901484
32.  $455 \text{ un}^3$
33.  $x = \frac{26}{5}$  OR  $x = 5.2$
34.  $x = 5$
35.  $x = 2$
36.  $x = 30$
37.  $x = 0$  and  $x = \frac{2}{3}$  and  $x = 2$
38. 128 marbles
39.  $x > \frac{3}{2}$  OR  $x > 1.5$
40. (0.25, 2.25)
41. 8
42. (0, -7)
43.  $a = 15$
44. Undefined
45.  $169\pi$
46. 13.5 hours
47.  $1617 + \frac{1}{4}$
48. 5 un x 10 un
49. Infinity OR  $\infty$
50.  $-40^{\circ}\text{C}$
51. 2 seconds
52. 16 and 18
53. \$24565
54. 80
55.  $x = 4$
56. 23
57. 15
58. 129
59. 3
60.  $70 \text{ un}^2$
61.  $x = -33$