

Science Olympiad

Water Quality Answer Sheet

MIT Invitational



Team Name: _____

Team Number: _____

Directions:

- Welcome to MIT 2026! You have 50 minutes to complete this test.
- **Please write legibly.** If we can't read your answer, we can't grade it.
- For all identification questions, answer with the common name as it appears in the rules. Be as specific as the rules are and use the most specific name from the rules possible.
- The size of a blank is roughly correlated with how much space you'll need to answer. If a question asks for a single word answer, just write the word. More generally, there is no need to elaborate unless explicitly asked to. However, you should show work on any questions requiring a calculation.

Points by Section:

For grading use only

Section	Points	Score
Warm Up!	30	
Graph Theory	54	
Water Doctor	77	
River Walk	76	
Bug Catching	56	
Daily Dips!!	53	
Winooski Watershed Woes	68	
The Salty Dog Rag	46	
Total Score	460	

Section 1: Warm Up!

- | | | |
|---------------------|----------------------|----------------------|
| 1. (2 points) _____ | 6. (2 points) _____ | 11. (2 points) _____ |
| 2. (2 points) _____ | 7. (2 points) _____ | 12. (2 points) _____ |
| 3. (2 points) _____ | 8. (2 points) _____ | 13. (2 points) _____ |
| 4. (2 points) _____ | 9. (2 points) _____ | 14. (2 points) _____ |
| 5. (2 points) _____ | 10. (2 points) _____ | 15. (2 points) _____ |

Section 2: Graph Theory

16. (a) (1 point) _____ (b) (1 point) _____ (c) (1 point) _____
17. (a) (1 point) _____ (b) (2 points) _____

(c) (1 point)

18. (a) (1 point) _____ (b) (1 point) _____ (c) (1 point) _____ (d) (1 point) _____
19. (a) (1 point) _____ (b) (1 point) _____
20. (a) (2 points) _____
- (b) (2 points)

(c) (2 points)

21. (a) (1 point) _____
(b) (2 points)

22. (3 points)

23. (a) (1 point) _____
(b) (2 points) _____

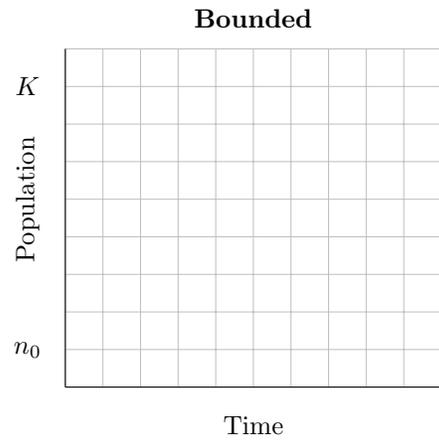
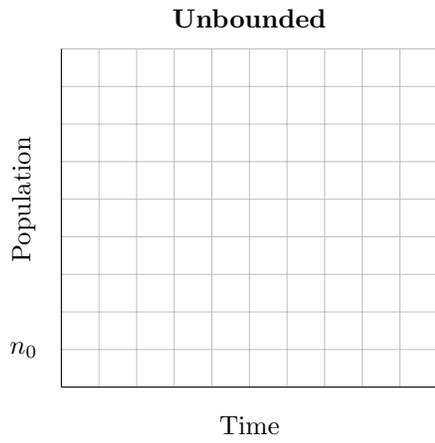
24. (2 points)

25. (a) (2 points)

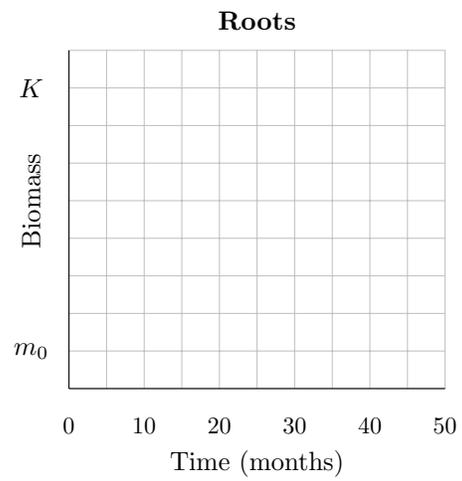
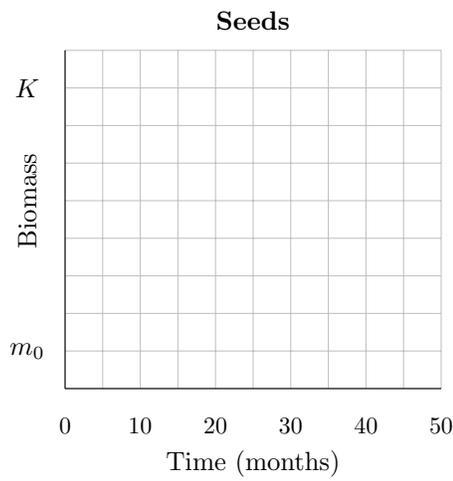
- (b) (2 points) _____
(c) (3 points) _____
(d) (2 points)

- (e) (1 point) _____
(f) (2 points) _____

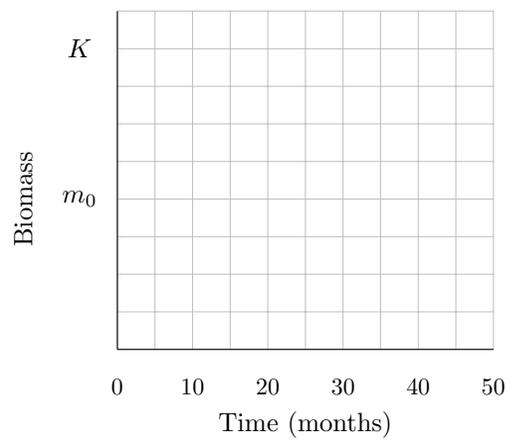
(g) (4 points)



(h) (3 points)



(i) (5 points)



Section 3: Water Doctor

26. (a) (1 point)

(b) (1 point) _____

(c) i. (1 point) _____

ii. (1 point) _____

iii. (1 point)

27. (a) (1 point) _____

(b) (3 points)

(c) (1 point) _____

(d) (3 points)

(e) (2 points)

(f) (1 point) _____

28. (a) (2 points)

(b) (2 points)

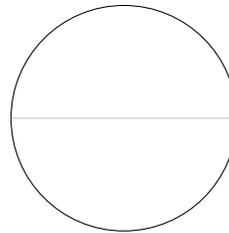
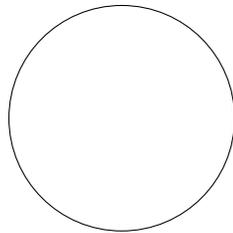
(c) (2 points)

(d) i. (3 points)

ii. (3 points)

Tank #1

Tank #2



center line provided for convenience

iii. (2 points)

iv. (2 points)

29. (a) (1 point)

(b) (1 point) _____

(c) (1 point) _____

(d) (1 point) _____

(e) i. (2 points)

ii. (2 points)

iii. (2 points)

iv. (2 points)

v. (2 points)

vi. (2 points)

vii. (2 points)

viii. (2 points)

30. (a) (2 points)

(b) (2 points)

31. (a) (2 points)

(b) (2 points)

(c) (2 points)

(d) (1 point) _____

(e) (1 point) _____

32. (a) (2 points)

(b) (2 points) _____

33. (a) (1 point) _____

(b) (1 point) _____

(c) (2 points)

(d) (2 points) _____

(e) (3 points)

Section 4: River Walk

34. (2 points) _____

35. (a) (2 points)

(b) (2 points)

(c) (1 point) _____

(d) (2 points)

(e) (2 points) _____

36. (a) (3 points)

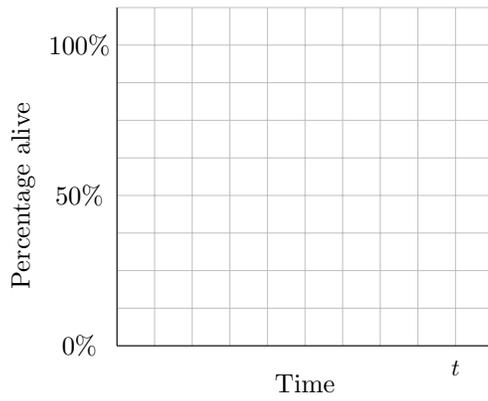
(b) (2 points) _____

(c) (4 points)

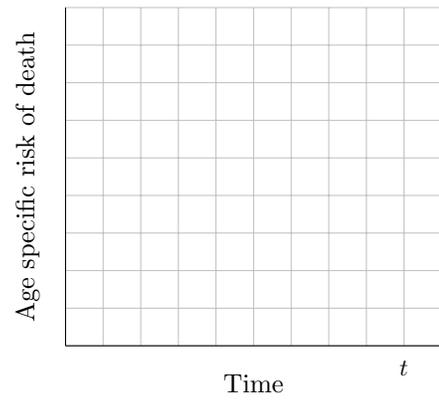
37. (3 points)

38. (a) (2 points) _____

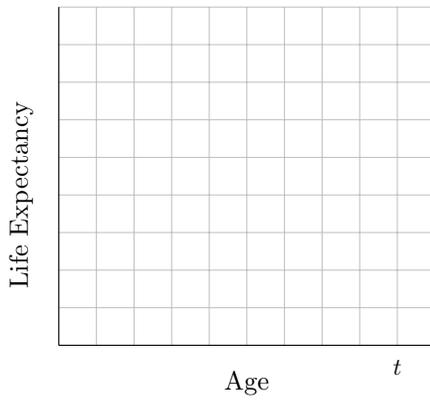
(b) (2 points)



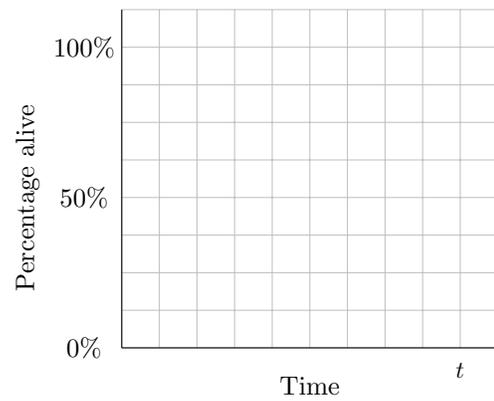
(c) (2 points)



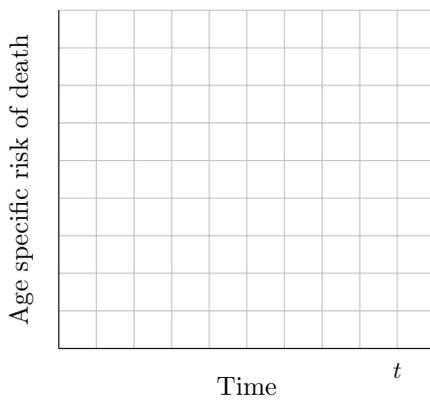
(d) (4 points)



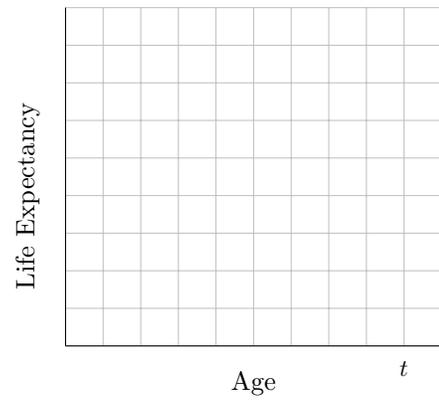
(e) (2 points)



(f) (1 point)



(g) (3 points)



39. (a) (2 points)

(b) (3 points)

(c) (3 points)

40. (a) (2 points) _____

(b) (1 point) _____

(c) (2 points)

(d) (3 points) _____

(e) (2 points) _____

(f) (1 point) _____

(g) (3 points)

41. (a) (2 points)

(b) (2 points) _____

(c) (2 points)

42. (a) (3 points)

(b) (2 points)

(c) (2 points)

43. (2 points)

Section 5: Bug Catching

44. (a) (1 point) _____
(b) (1 point) _____
(c) (2 points) _____
(d) (3 points)

- (e) (2 points)

- (f) (4 points) _____
(g) (2 points) _____
(h) (3 points)

- (i) (2 points)

- (j) (1 point) _____
(k) (2 points) _____

45. (a) (1 point) _____
(b) (3 points)

- (c) (2 points) _____
(d) (1 point) _____

46. (a) (2 points)

- (b) (2 points)

47. (a) (2 points) _____
(b) (1 point) _____
(c) (2 points)

- (d) (1 point) _____
(e) (2 points) _____
(f) (1 point)

48. (a) (1 point) _____
(b) (3 points)

- (c) (2 points) _____
(d) (3 points) _____

49. (a) (1 point) _____
(b) (2 points) _____
(c) (1 point)

Section 6: Daily Dips!!

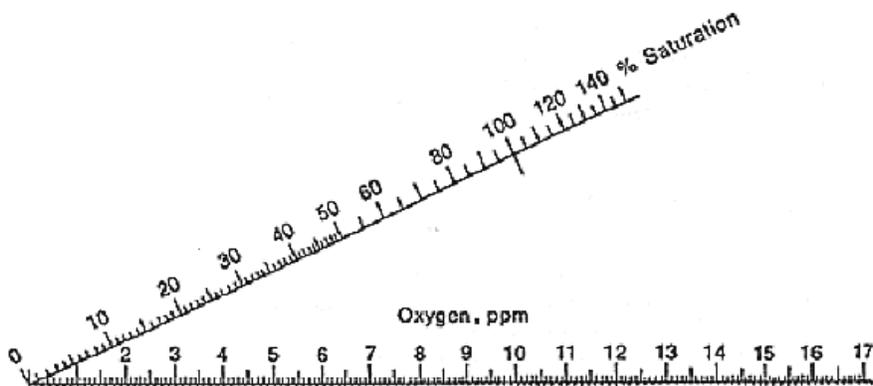
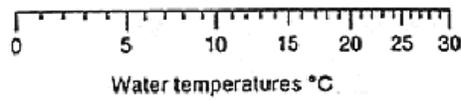
50. (a) (4 points)

(b) (3 points)

(c) i. (1 point) _____ iii. (1 point) _____ v. (1 point) _____
ii. (1 point) _____ iv. (1 point) _____

(d) (3 points)

(e) (2 points) _____



51. (a) (4 points)

(b) (3 points)

(c) (8 points)

(d) (1 point) _____

(e) (2 points)

(f) (2 points)

52. (a) (2 points)

(b) (3 points)

(c) (1 point)

(d) (1 point) _____

(e) (5 points) _____

(f) i. (1 point) _____ ii. (1 point) _____ iii. (1 point) _____ iv. (1 point) _____

Section 7: Winooski Watershed Woes

53. (a) i. (2 points) _____
ii. (2 points) _____
(b) (1 point) _____
(c) (1 point) _____

54. (a) (2 points)

- (b) (2 points)

- (c) (2 points)

- (d) (1 point) _____ (e) (1 point) _____

55. (a) (2 points) _____
i. (1 point) _____
ii. (2 points) _____
(b) (2 points) _____
i. (1 point) _____
(c) (2 points) _____
i. (1 point) _____
(d) (2 points) _____
i. (1 point) _____
ii. (1 point) _____
(e) (2 points) _____
i. (1 point) _____
ii. (1 point) _____ iii. (2 points) _____
(f) (2 points) _____
i. (1 point) _____
(g) (2 points) _____
i. (1 point) _____
ii. (1 point)

56. (5 points)

57. (1 point) _____

58. (6 points)

59. (a) (1 point) _____ (b) (1 point) _____ (c) (1 point) _____ (d) (1 point) _____

60. (a) (1 point) _____ (b) (1 point) _____ (c) (1 point) _____

61. (2 points)

62. (1 point)

63. (2 points)

(a) (2 points) _____

64. (0 points) _____

Section 8: The Salty Dog Rag

65. (23 points) _____ *(For ES Use Only)*

66. (23 points) _____