

PhysMockH10903Ans

1. B
2. A
3. C
4. A
5. B
6. A (not so trivial, $E_{\text{pot}} = -GmM/r$, $E_{\text{kin}} = \frac{1}{2}GmM/r$, total energy not conserved)
7. D
8. D
9. A (!)
10. B
11. C
12. B
13. A
14. B
15. B
16. D
17. D
18. D
19. B
20. C
21. C
22. D (repetition!)
23. D
24. D
25. D
26. A
27. A (official answer: B which is wrong)
28. B
29. D
30. C
31. B
32. A
33. C
34. D
35. C
36. C
37. A
38. B if restmass, D if moving mass
39. B
40. D