

1. D
2. D
3. B
4. B
5. D
6. C
7. C
8. C
9. B
10. C
11. B
12. C
13. C
14. D
15. C
16. D. Centripetal and gravity
17. C. $mg\Delta y = \frac{1}{2}mv^2$
18. C. $\cos\theta > \sin\theta$
19. C. $mg y, \frac{1}{2}mv^2$. Get ratios of energy
20. A. Velocity of rock 1 is equal to block two, but rock 3 is less as it has no initial vertical velocity
21. A. Total displacement is 0.
22. C. $FD = \frac{1}{2}mv^2$, solve for velocity
23. C. Goes straight down, as table does not give any normal force to prevent it sliding.
24. A. Must be along the y-axis. Transverse across horizontal, longitudinal across vertical.
25. D
26. A
27. D
28. D
29. C
30. D
31. B
32. B
33. A
34. C
35. B
- 36.