

Answers to orbiting/escaping questions on handout

31. $1.4 \times 10^9 \text{ J}$

32. a) $-1.18 \times 10^{11} \text{ J}$ b) $5,89 \times 10^{10} \text{ J}$ c) $-5.88 \times 10^{10} \text{ J}$ d) $7.89 \times 10^3 \text{ J}$

33. a) $-3.03 \times 10^{10} \text{ n J}$ b) 1.52×10^{10} c) $-1.52 \times 10^{10} \text{ J}$ d) 94%

34. a) $-3.99 \times 10^8 \text{ J}$ b) $>3.99 \times 10^8 \text{ J}$ c) $2.82 \times 10^2 \text{ m/s}$

35. a) $6.16 \times 10^5 \text{ m/s}$ b) $4.34 \times 10^4 \text{ m/s}$