

Physics Chpt Five Review C5R1

List data, do conversions, base formula, isolate, plug in variables, estimate and then solve.

1. A golf club accelerates a ball from rest to 175 m/s through 0.75 m of contact. a) What acceleration does the ball experience during contact?...b) What amount of time is the ball in contact with the club?
2. A baseball player running at 27 km/hr slides into second. The sliding takes 1.23 s. a) What is his/her acceleration?...b) How far did he/she slide?
3. A bullet accelerates through a 1.2 m barrel at $1.1 \times 10^5 \text{ m/s}^2$. a) What speed does it leave the barrel at?...b) What time is in the barrel?...How high would it go if it went straight up?
4. A sky diver opens his shoot when he reaches *terminal velocity* at 120. mph and slows to 35 mph in 6.0 s. a) What is his deceleration?...b) How far does he travel during his deceleration?...
5. A rock is thrown upward at 45 km/hr. a) How high does it go?...b) How long does it take to get to the top of its path?
6. A rock falls off a 122 m cliff. a) What velocity does it hit at?...b) How long does it take to hit?