| L3Q1 | How much energy does it take to accelerate a 2200 kf car from 0 to 60 mph? | 792000 | J | 792 | kJ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| L3Q2 | What is the energy input needed if the engine/drive train losses are $70 \%$ ? | 2640000 | J | 2.64 | MJ |
| L3Q3 | A certain gas car gets $50 \mathrm{~km} / \mathrm{gal}$ (ave). How much energy does it take to get to Chicago? | 475.2 | MJ |  |  |
| L3Q4 | What is the average power needed to lift 500 kg by 2 meters every minute? | 167 | W | 0.167 | kW |
| L3Q5 | What is the power needed to expend 800kJ in five seconds? | 160000 | W | 160 | kW |
| L3Q6 | What is the charge moved through 400 V to provide 800 kJ of energy? | 2000 | C |  |  |
| L3Q7 | What is the average current if the energy in Q5 is provided in five seconds? | 400 | A |  |  |

