**. Compound Interest .**

**When interest is compounded over many years repeated multiplication is needed. To do this we use powers.**

**Final balance = Starting Balance × multiplyeryears**

**If there is a 5% increase then the multilayer is 1.05**

**If there is a 5% decrease then the multilayer is 1 – 0.05 = 0.95**

**Remember to round your answers appropriately**

**Eg $4500 invested at 7% for 10 years would result in…**

**$4500 × 1.0710 = $8852.18**

**Eg A car lost 12% of its value every year. After 15 years it was valued at $2400. What was its initial value?**

**2400 = Initial Value × 0.8815**

**Initial Value = 2400 ÷ 0.8815 = $16329**