

### **In a Galaxy Far, Far Away (GFFA)**

An asteroid very far away from our own galaxy (AVFAFOOG) is orbiting an unnamed star with period  $T$ . A dwarf planet that was once called a planet (DPT. WOCAP) orbits the same star at a distance  $b$  times farther away from the star than AVFAFOOG. What is the period of DPT. WOCAP's orbit? Both celestial bodies have circular orbits.