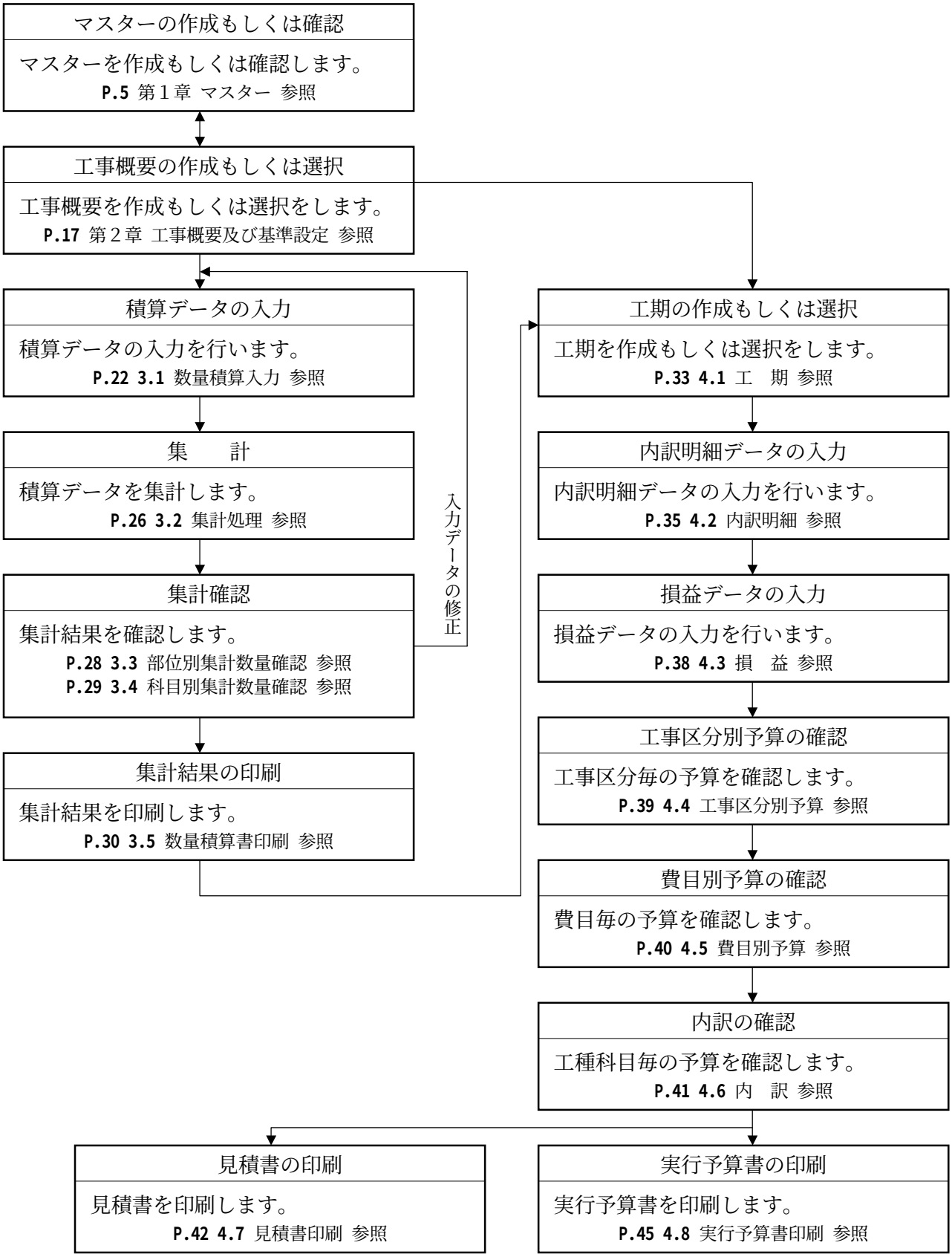friend による積算の流れ