Übungsblatt 7

Truong

Aufgabe 2

- Notiz: R heißt Rot (red node), B heißt Schwarz (black node)
- Add 41

B41

• Add 38

B41 / R38

• Add 31

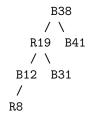


• Add 12

• Add 19

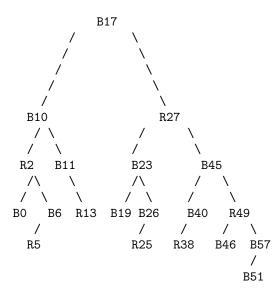


• Add 8

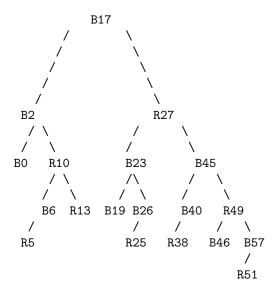


Aufgabe 3

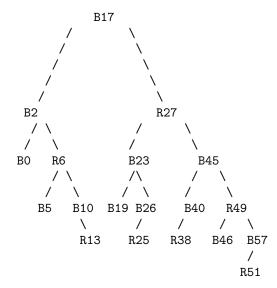
Gegebenen Baum:



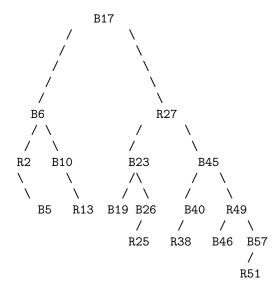
 $\begin{tabular}{ll} \bf Delete \ 11 \\ \bf Vor \ RB-Delete-Fixup \\ \end{tabular}$



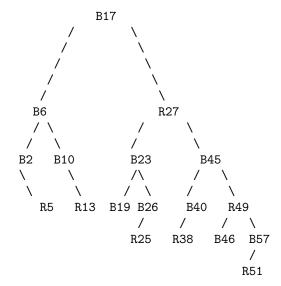
Nach RB-Delete-Fixup



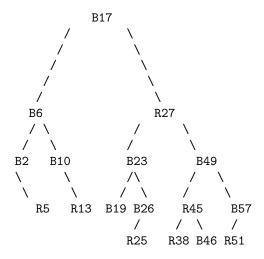
 $\begin{array}{c} \textbf{Delete 0} \\ \\ \textbf{Vor RB-Delete-Fixup} \end{array}$



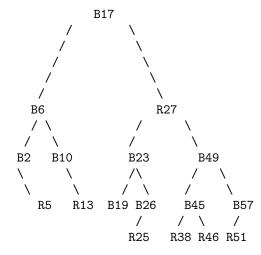
Nach RB-Delete-Fixup



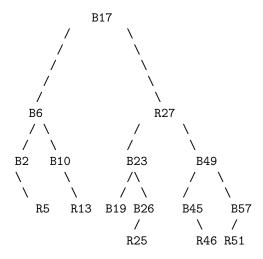
 $\begin{array}{c} \textbf{Delete 40} \\ \textbf{Vor RB-Delete-Fixup} \end{array}$



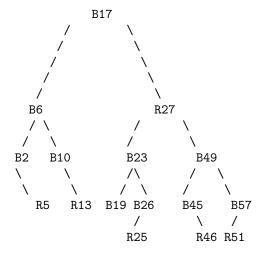
 ${\it Nach}$ RB-Delete-Fixup



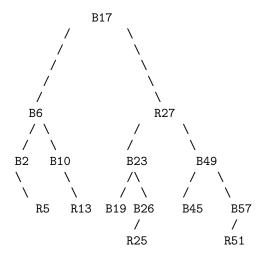
Delete 38
vor RB-Delete-Fixup



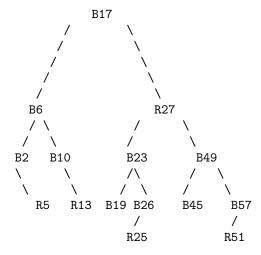
Nach RB-Delete-Fixup



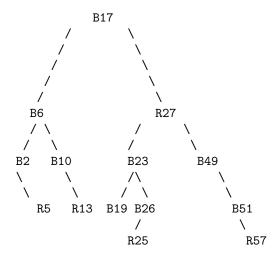
 $\begin{array}{c} \textbf{Delete 46} \\ \textbf{Vor RB-Delete-Fixup} \end{array}$



Nach RB-Delete-Fixup



 $\begin{array}{l} \textbf{Delete 45} \\ \textbf{Vor RB-Delete-Fixup} \end{array}$



Nach RB-Delete-fixup bzw $\operatorname{End-result}$:

