



DATA STRUCTURES II

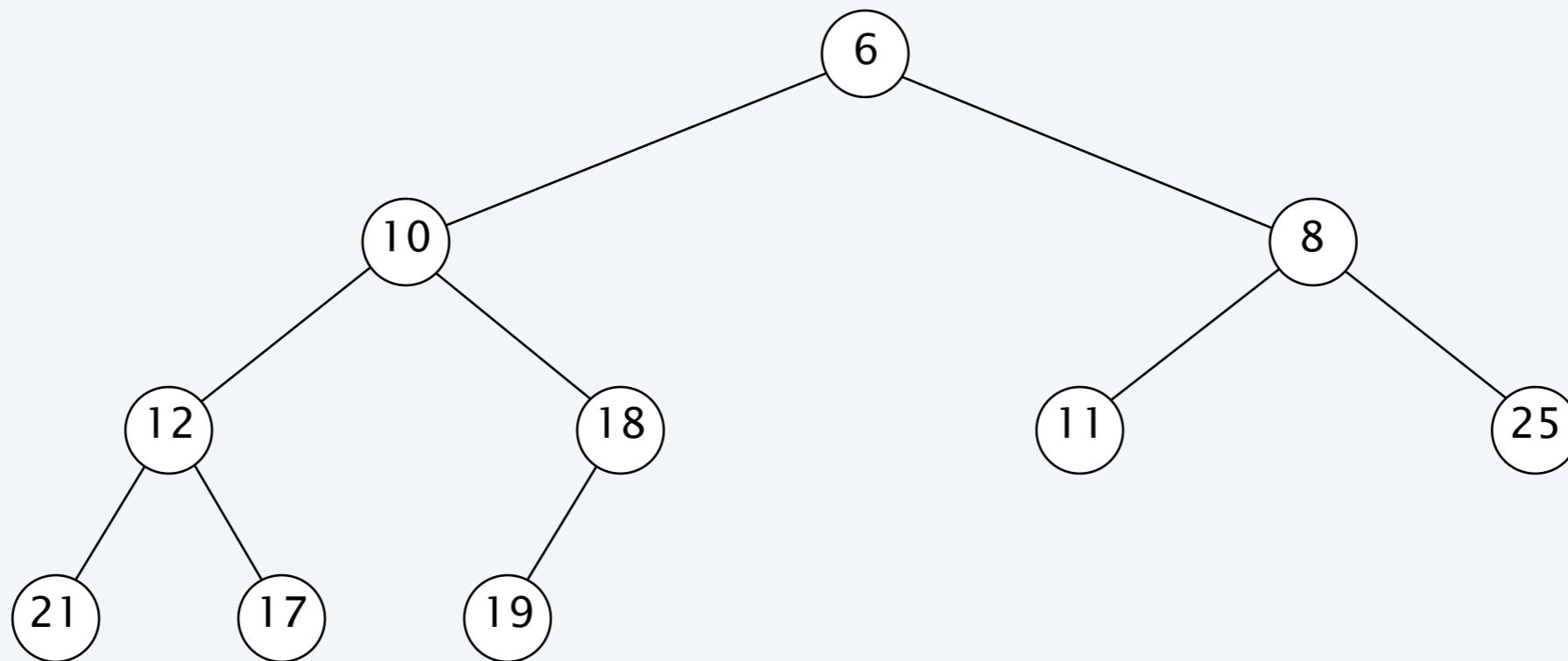
▶ *binary heap demo*

Lecture slides by Kevin Wayne

<http://www.cs.princeton.edu/~wayne/kleinberg-tardos>

Binary heap demo

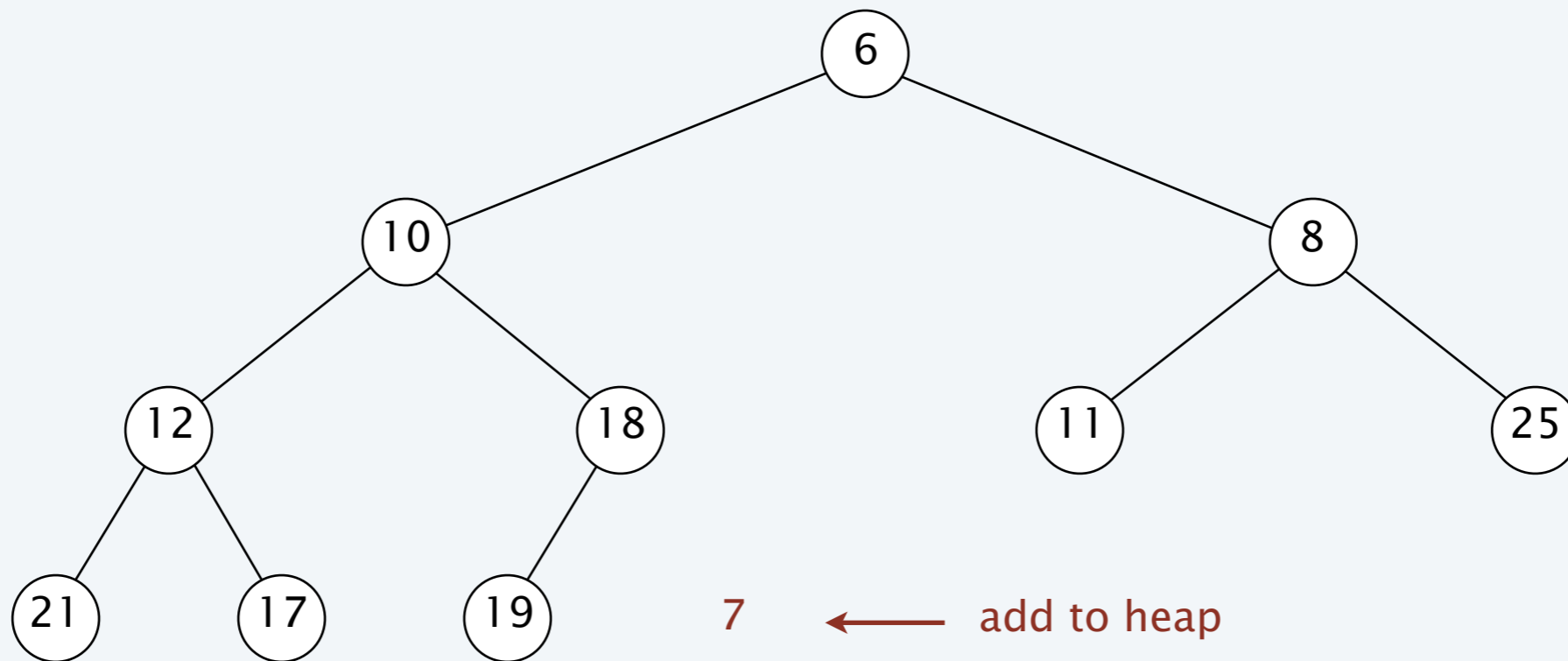
heap ordered



Binary heap demo

Insert. Add node at end; repeatedly exchange element in child with element in parent until heap order is restored.

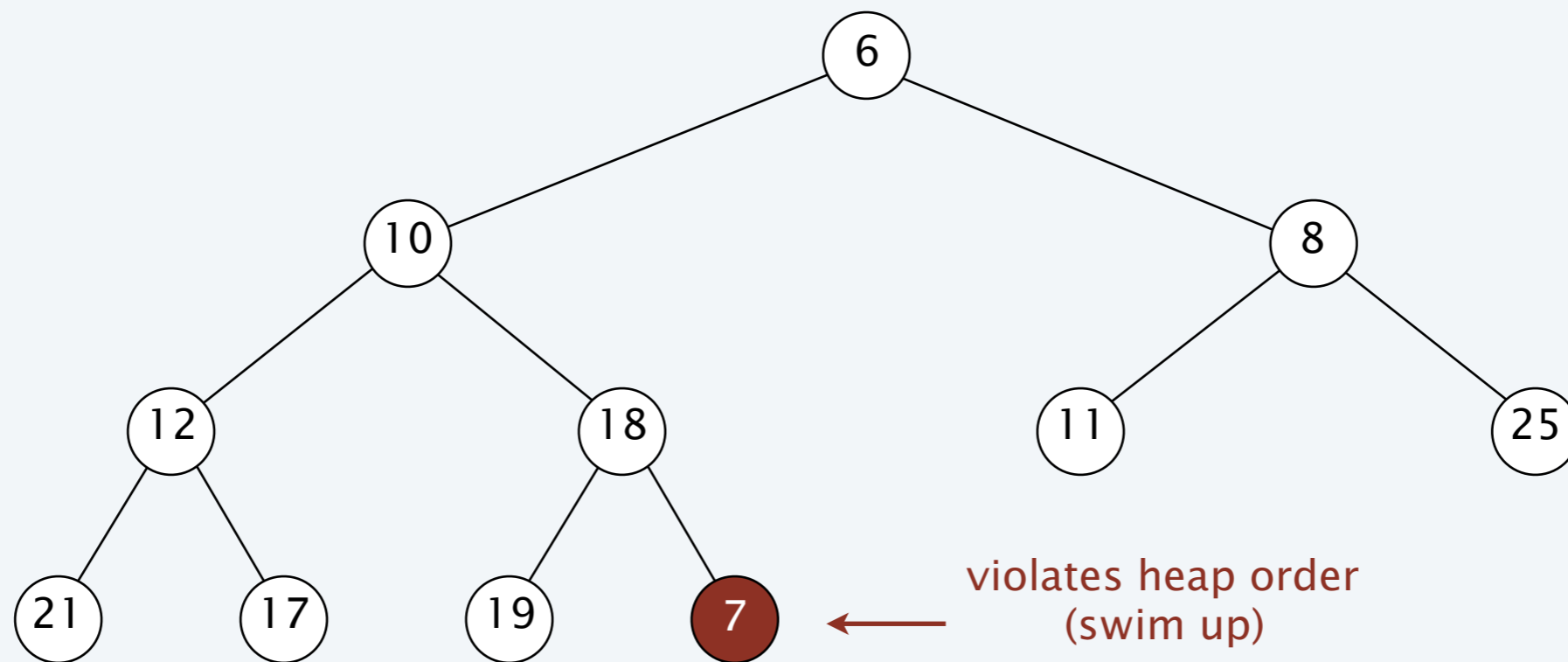
insert 7



Binary heap demo

Insert. Add node at end; repeatedly exchange element in child with element in parent until heap order is restored.

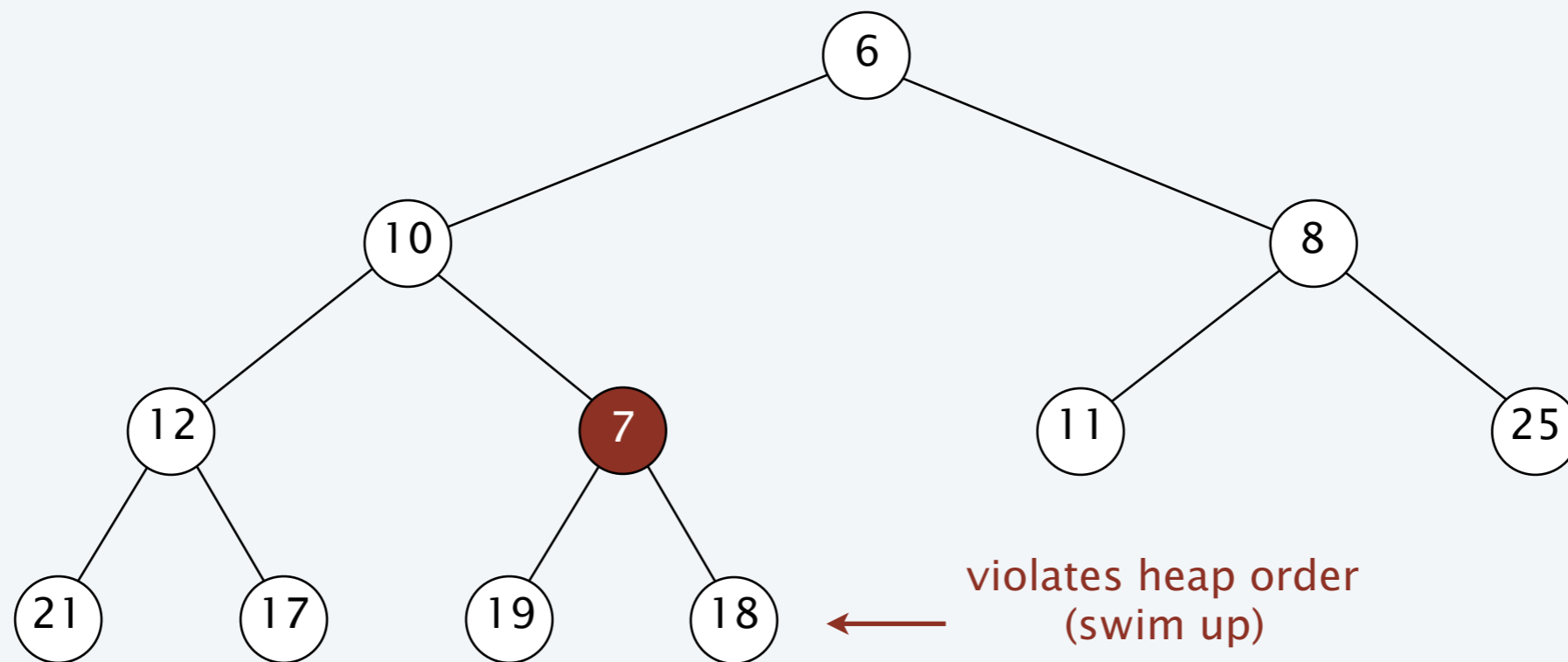
insert 7



Binary heap demo

Insert. Add node at end; repeatedly exchange element in child with element in parent until heap order is restored.

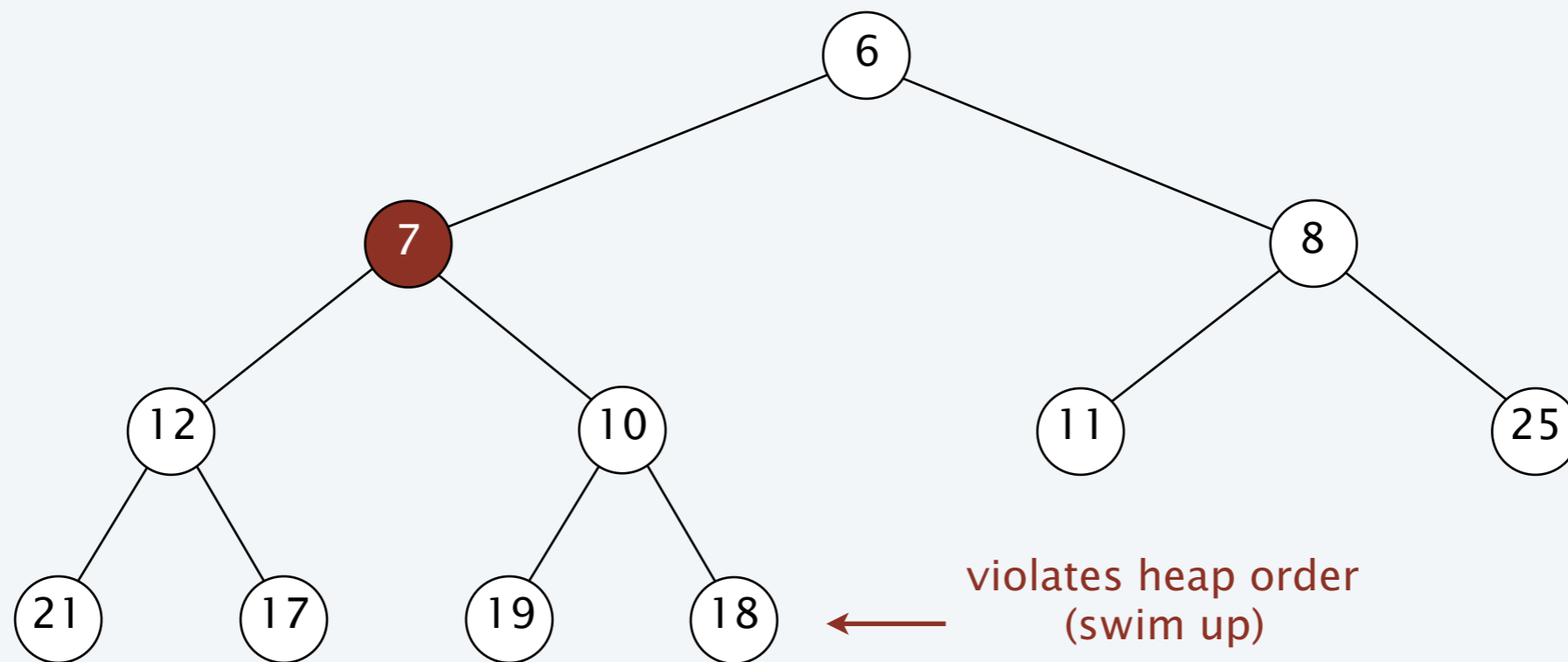
insert 7



Binary heap demo

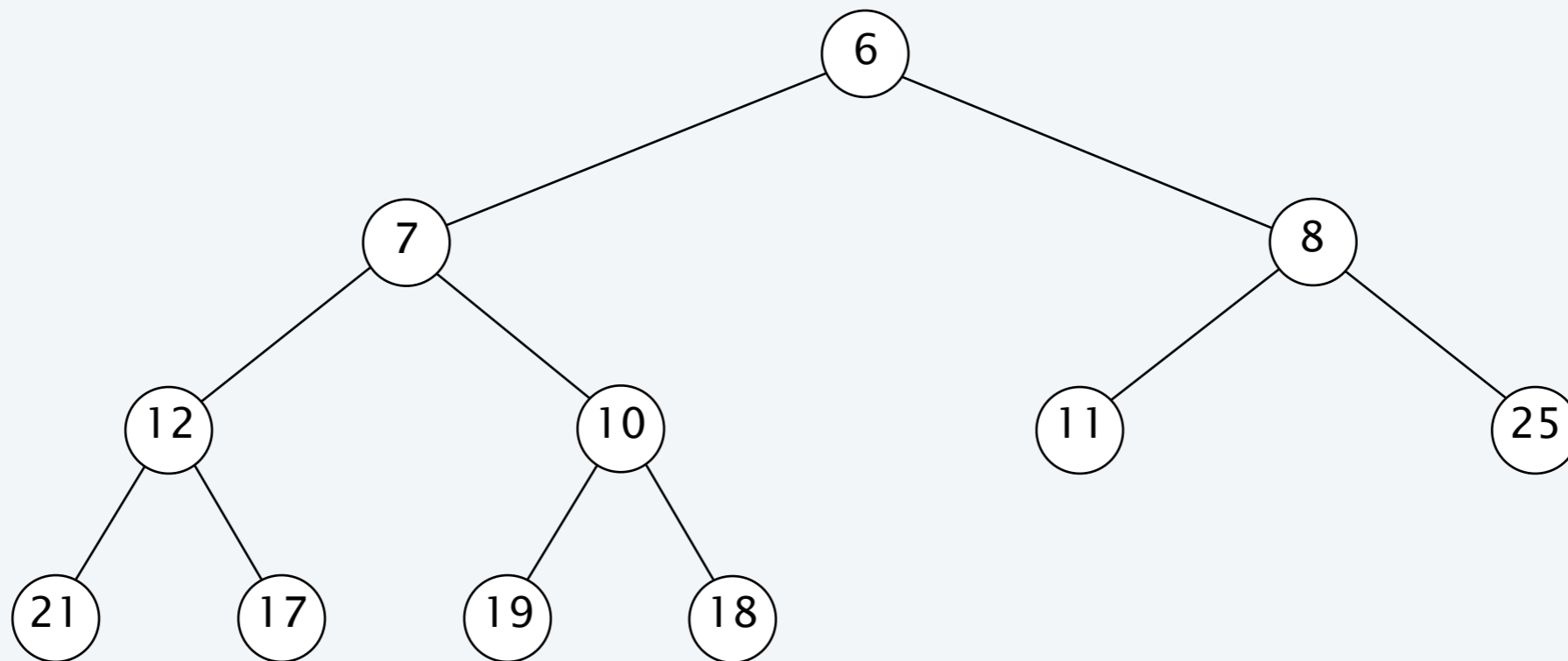
Insert. Add node at end; repeatedly exchange element in child with element in parent until heap order is restored.

insert 7



Binary heap demo

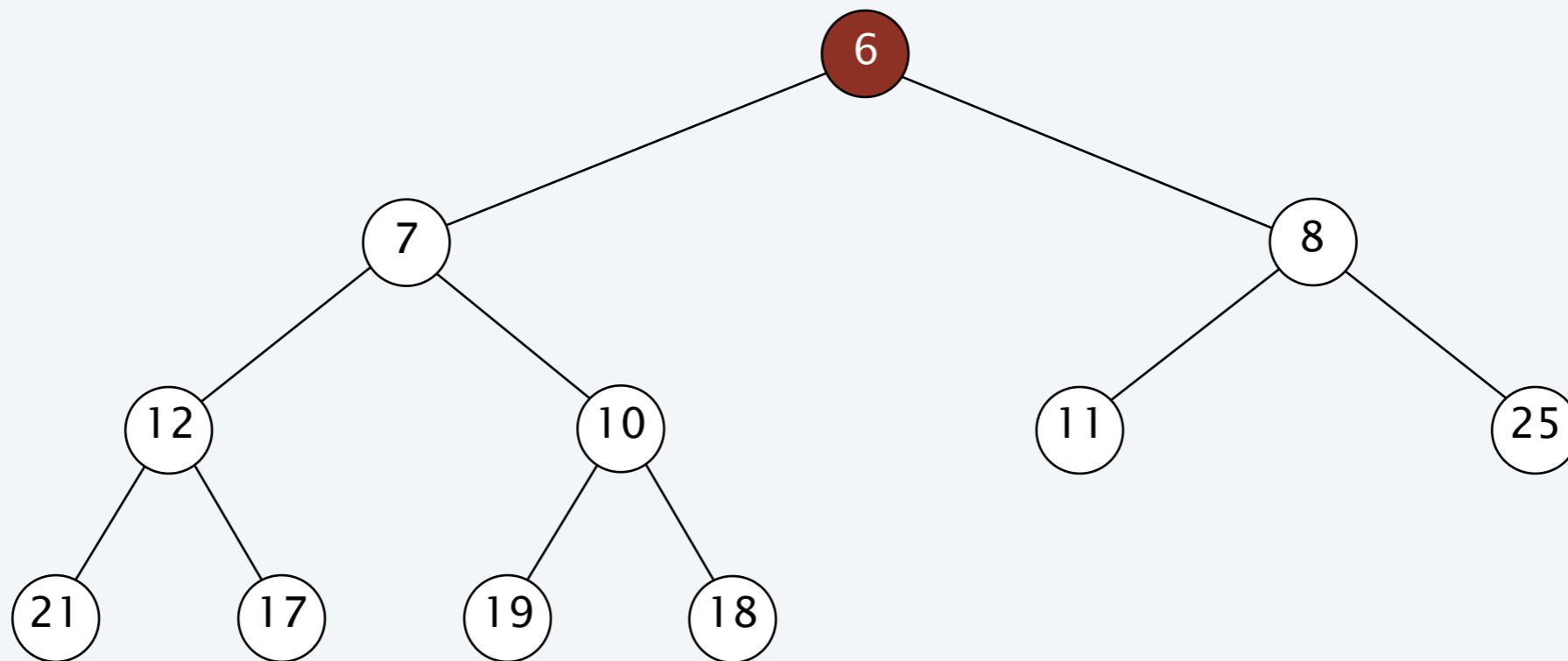
heap ordered



Binary heap demo

Extract min. Exchange root node with last node; repeatedly exchange element in parent with element in larger child until heap order is restored.

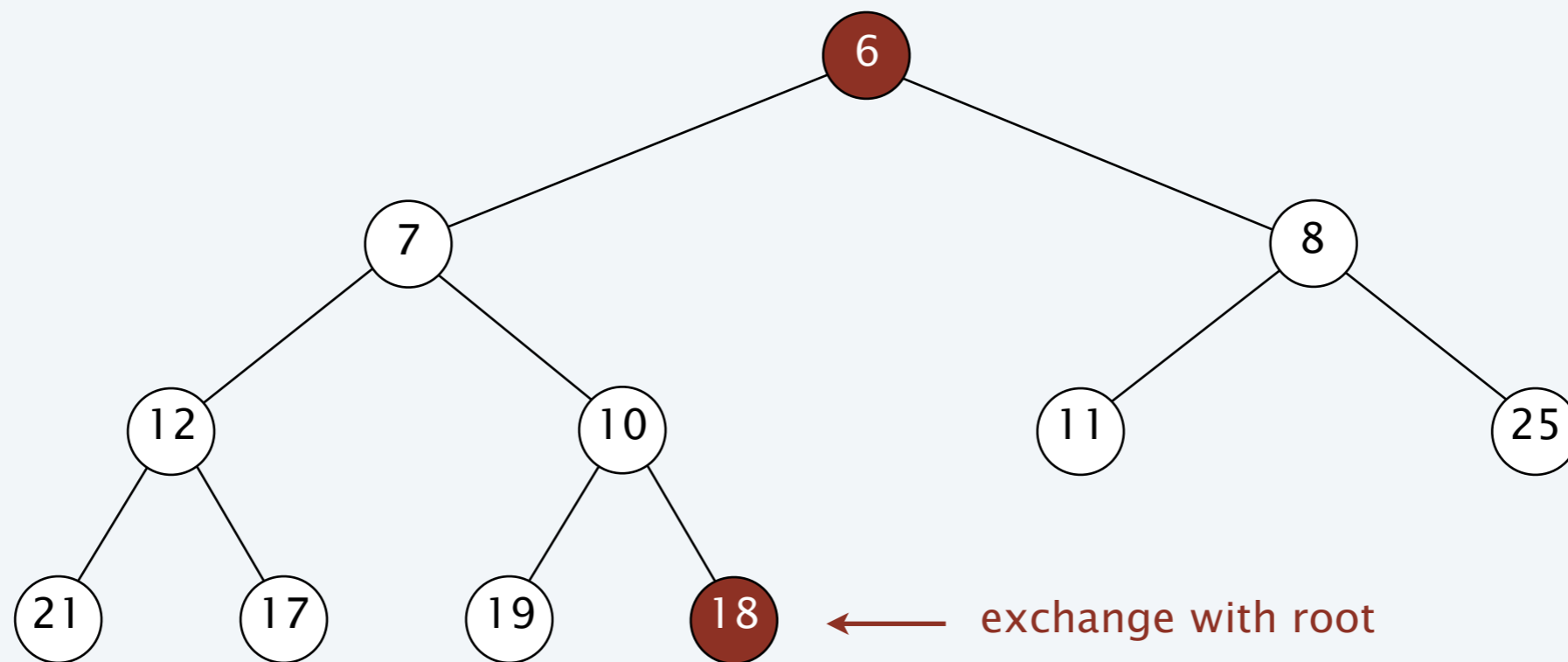
extract the minimum



Binary heap demo

Extract min. Exchange root node with last node; repeatedly exchange element in parent with element in larger child until heap order is restored.

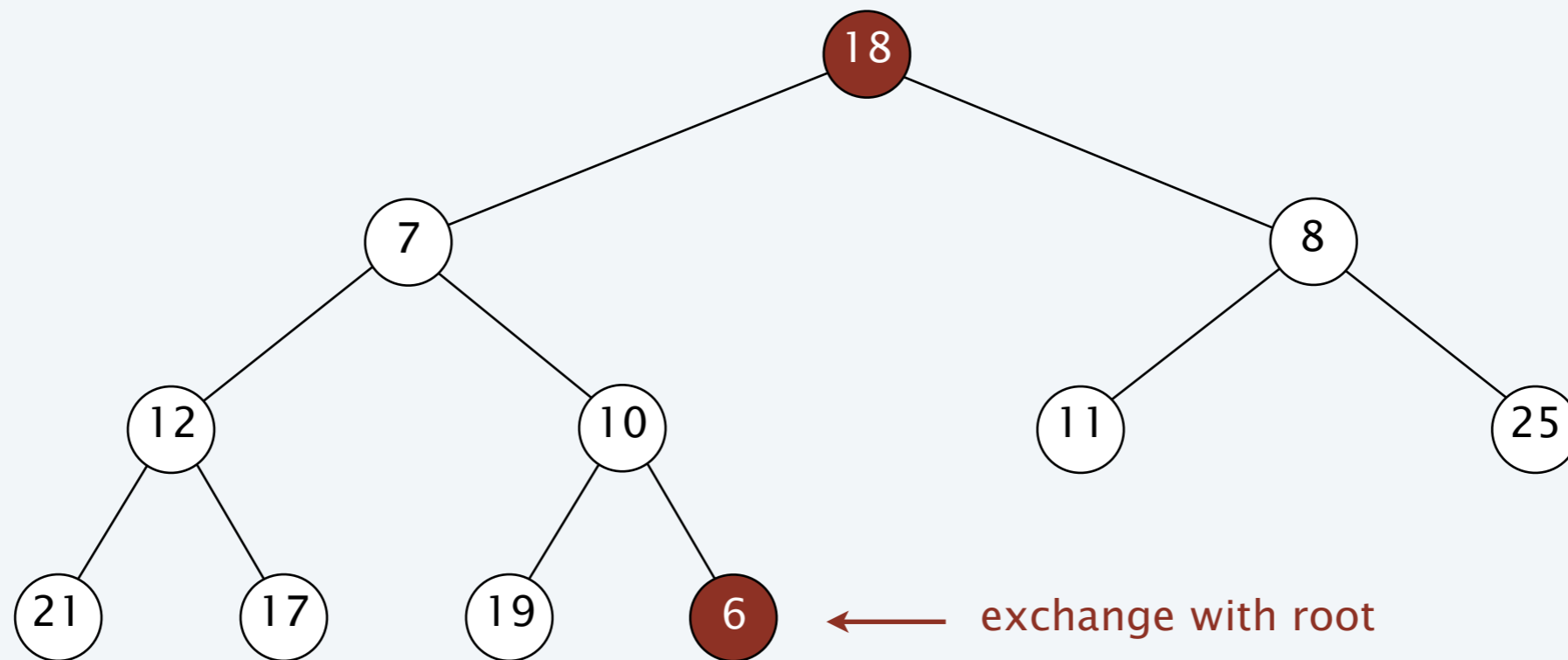
extract the minimum



Binary heap demo

Extract min. Exchange root node with last node; repeatedly exchange element in parent with element in larger child until heap order is restored.

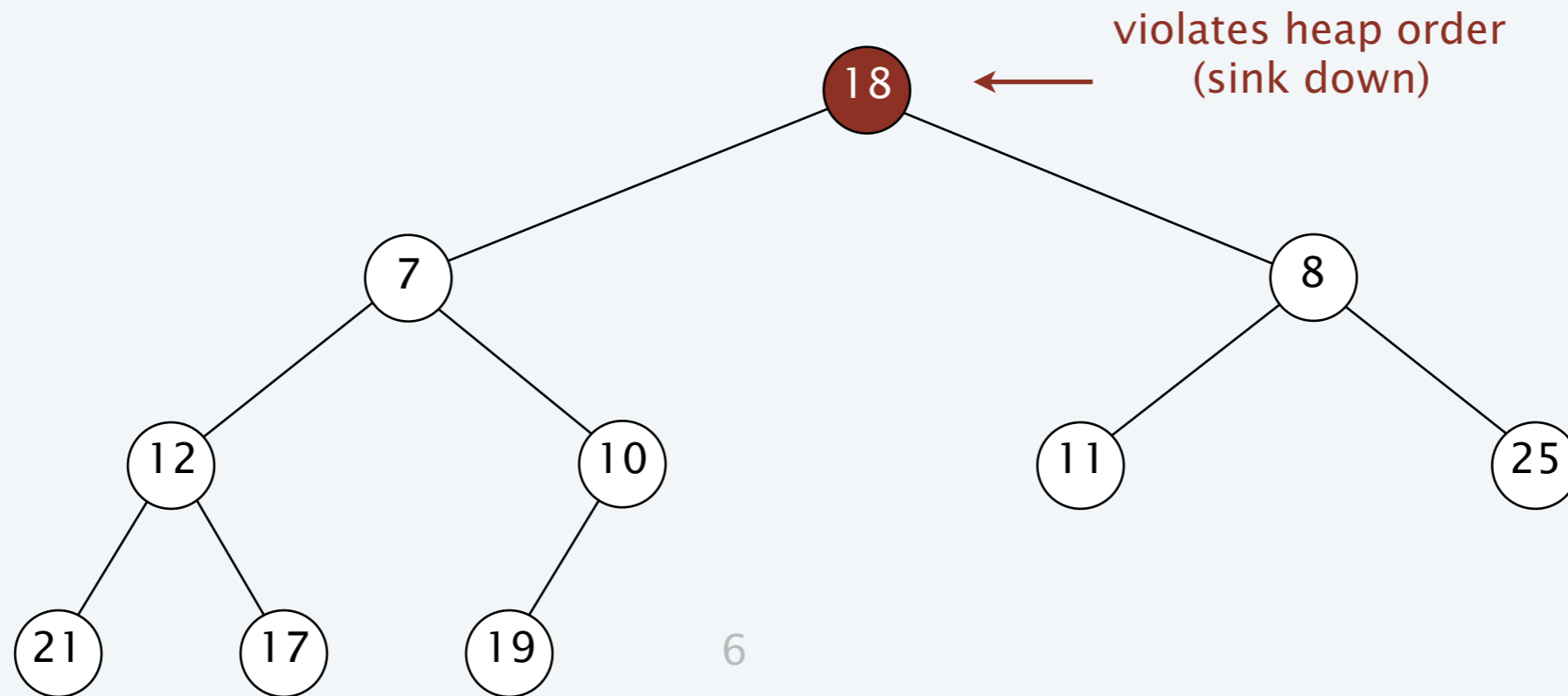
extract the minimum



Binary heap demo

Extract min. Exchange root node with last node; repeatedly exchange element in parent with element in larger child until heap order is restored.

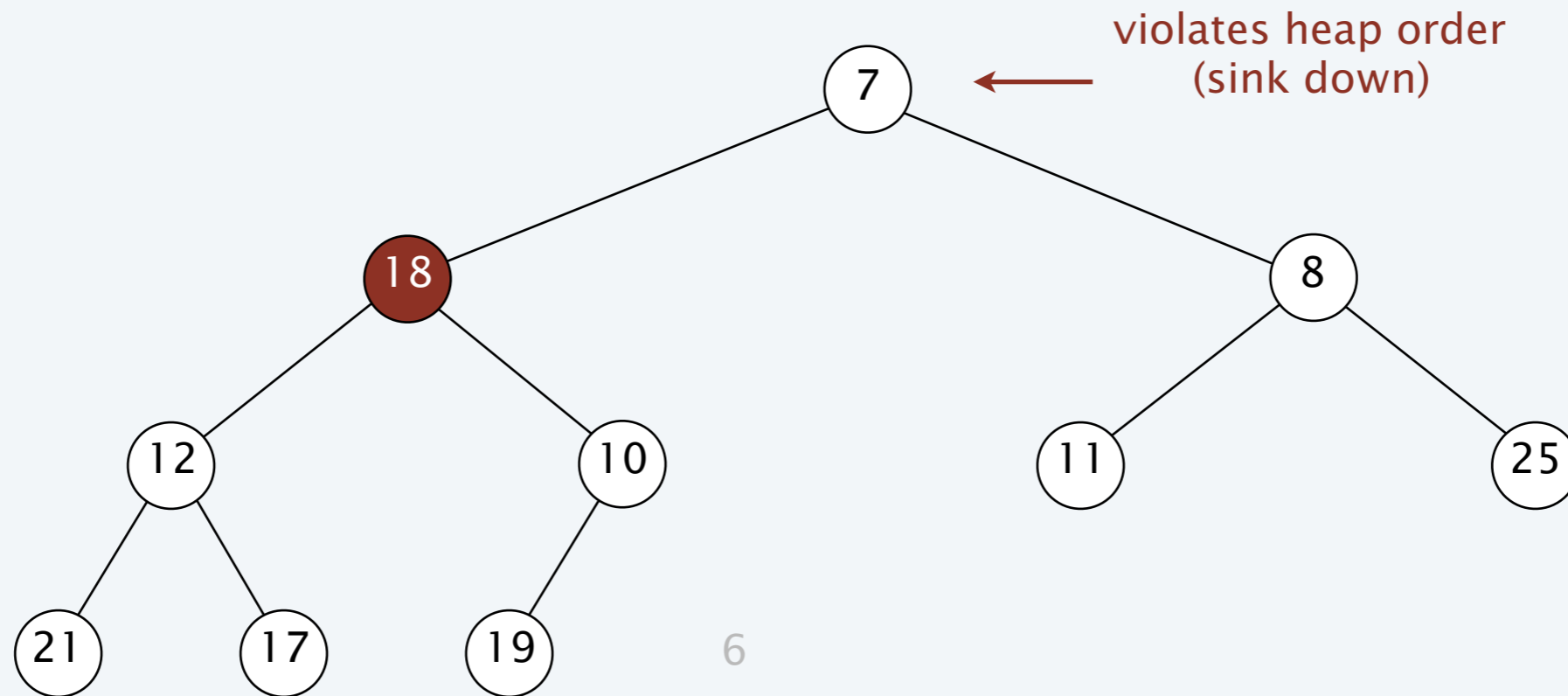
extract the minimum



Binary heap demo

Extract min. Exchange root node with last node; repeatedly exchange element in parent with element in larger child until heap order is restored.

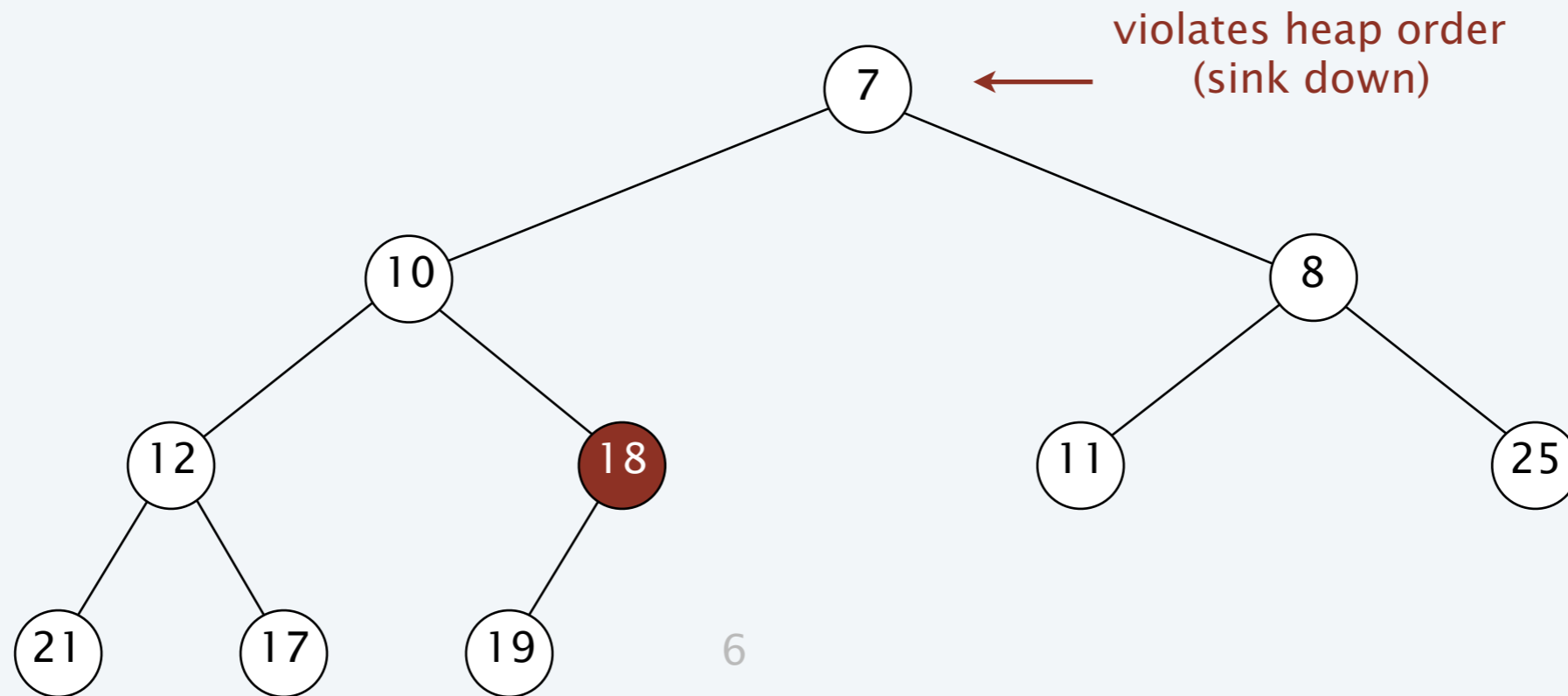
extract the minimum



Binary heap demo

Extract min. Exchange root node with last node; repeatedly exchange element in parent with element in larger child until heap order is restored.

extract the minimum



Binary heap demo

heap ordered

