

## **1**.

```
(define (contains? bst num)
  (cond ((null? bst) #f)
        ((> num (datum bst)) (contains? (right bst) num))
        ((< num (datum bst)) (contains? (left bst) num))</pre>
        (else #t)))
2.
(define (in-order bst)
  (if (empty-tree? bst)
      '()
      (append (in-order (left bst))
               (list (datum bst))
               (in-order (right bst)))))
<mark>3.</mark>
(define (count-nodes bst)
  (if (empty-tree? bst)
      (+ 1 (count-nodes (left bst)) (count-nodes (right bst)))))
```