

Algorithmen und Datenstrukturen - Hausübung 11

Gruppenmitglieder

- Emre Berber (2957148)
- Christoph Berst (2743394)
- Jan Braun (2768531)

Inhaltsverzeichnis

| | |
|---------------|----------|
| H1 | 1 |
| a) | 1 |
| i) | 1 |
| ii) | 1 |
| b) | 1 |
| i) | 1 |
| ii) | 1 |
| H2 | 2 |
| a) | 2 |
| b) | 2 |
| H3 | 2 |
| a) | 2 |
| b) | 2 |
| c) | 3 |

H1

a)

i)

"to be filled in!"

ii)

"to be filled in!"

b)

i)

"to be filled in!"

ii)

"to be filled in!"

H2

a)

| $\{u, v\}$ | $w(\{u, v\})$ | Dazu? | set(a) | set(b) | set(c) | set(d) | set(e) | set(f) | set(g) | set(h) | set(j) | set(k) |
|------------|---------------|-----------|------------------------|------------------|------------------------|------------|------------------|------------------------|---------------------|------------|------------------|---------|
| \square | \square | \square | $\{a\}$ | $\{b\}$ | $\{c\}$ | $\{d\}$ | $\{e\}$ | $\{f\}$ | $\{g\}$ | $\{h\}$ | $\{j\}$ | $\{k\}$ |
| $\{a, c\}$ | 1 | true | $\{a, c\}$ | = | $\{a, c\}$ | = | = | = | = | = | = | = |
| $\{b, j\}$ | 2 | true | = | $\{b, j\}$ | = | = | = | = | = | = | $\{b, j\}$ | = |
| $\{c, g\}$ | 2 | true | $\{a, c, g\}$ | = | $\{a, c, g\}$ | = | = | = | $\{a, c, g\}$ | = | = | = |
| $\{d, h\}$ | 2 | true | = | = | = | $\{d, h\}$ | = | = | = | $\{d, h\}$ | = | = |
| $\{a, d\}$ | 3 | true | $\{a, c, d, g, h\}$ | = | $\{a, c, d, g, h\}$ | = | = | = | $\{a, c, d, g, h\}$ | = | = | = |
| $\{a, g\}$ | 3 | false | = | = | = | = | = | = | = | = | = | = |
| $\{b, k\}$ | 3 | true | = | $\{b, j, k\}$ | = | = | = | = | = | = | $\{b, j, k\}$ | = |
| $\{a, f\}$ | 4 | true | $\{a, c, d, f, g, h\}$ | = | $\{a, c, d, f, g, h\}$ | = | = | $\{a, c, d, f, g, h\}$ | = | = | = | = |
| $\{f, h\}$ | 4 | false | = | = | = | = | = | = | = | = | = | = |
| $\{j, k\}$ | 4 | false | = | = | = | = | = | = | = | = | = | = |
| $\{c, f\}$ | 5 | false | = | = | = | = | = | = | = | = | = | = |
| $\{e, j\}$ | 5 | true | = | $\{b, e, j, k\}$ | = | = | $\{b, e, j, k\}$ | = | = | = | $\{b, e, j, k\}$ | = |
| $\{c, h\}$ | 7 | false | = | = | = | = | = | = | = | = | = | = |
| $\{b, e\}$ | 8 | false | = | = | = | = | = | = | = | = | = | = |

b)

| $a.k$ | $b.k$ | $c.k$ | $d.k$ | $e.k$ | $f.k$ | $g.k$ | $h.k$ | $j.k$ | $k.k$ | $l.k$ | $m.k$ | $n.k$ | $p.k$ | $r.k$ | u |
|-----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|
| $-\infty$ | ∞ | ∞ | ∞ | ∞ | ∞ | ∞ | ∞ | ∞ | ∞ | ∞ | ∞ | ∞ | ∞ | ∞ | $-\infty$ |

| $a.p$ | $b.p$ | $c.p$ | $d.p$ | $e.p$ | $f.p$ | $g.p$ | $h.p$ | $j.p$ | $k.p$ | $l.p$ | $m.p$ | $n.p$ | $p.p$ | $r.p$ | Q |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---|
| nil | nil | nil | nil | nil | nil | nil | nil | nil | nil | nil | nil | nil | nil | nil | $\{a, b, c, d, e, f, g, h, j, k, l, m, n, p, r\}$ |

H3

a)

"to be filled in!"

b)

"to be filled in!"

c)

"to be filled in!"