

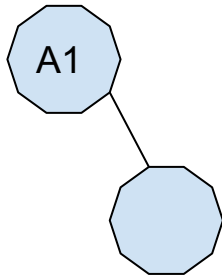
# Exercício 3

Intercalação Polifásica usando Seleção por Substituição

A M A F A G A F A R O S M A F A G A F I N H O S

Heap de 2 posições

Heap Mínimo



Entrada

Fita 1



Fita 2



Fita 3



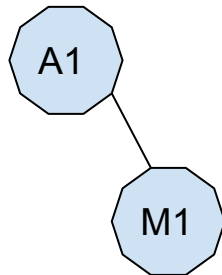
Fita 4



**A M A F A G A F A R O S M A F A G A F I N H O S**

Heap de 2 posições

Heap Mínimo



Entrada

Fita 1



Fita 2



Fita 3



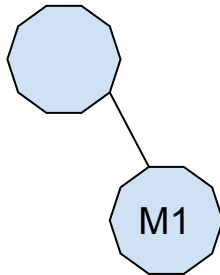
Fita 4



**A M A F A G A F A R O S M A F A G A F I N H O S**

Heap de 2 posições

Heap Mínimo



Entrada

Fita 1

A

Fita 2

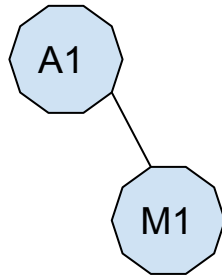
Fita 3

Fita 4

**A M A F A G A F A R O S M A F A G A F I N H O S**

Heap de 2 posições

Heap Mínimo



Entrada

Fita 1

A

Fita 2

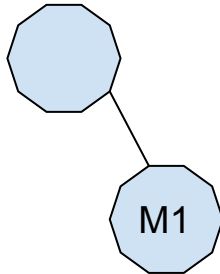
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Fita 4

**A M A F A G A F A R O S M A F A G A F I N H O S**

Heap de 2 posições

Heap Mínimo



Entrada

Fita 1

AA

Fita 2

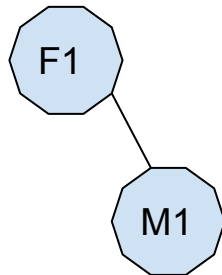
Fita 3

Fita 4

**A M A F A G A F A R O S M A F A G A F I N H O S**

Heap de 2 posições

Heap Mínimo



Entrada

Fita 1

AA

Fita 2

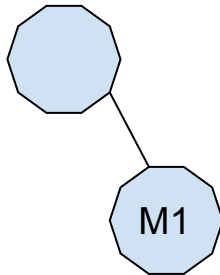
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Fita 4

**A M A F A G A F A R O S M A F A G A F I N H O S**

Heap de 2 posições

Heap Mínimo



Entrada

Fita 1

A A F

Fita 2

Fita 3

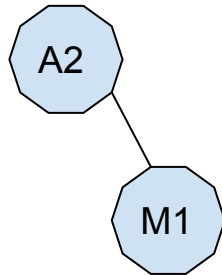
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**A M A F A G A F A R O S M A F A G A F I N H O S**

Heap de 2 posições

Heap Mínimo



Entrada

Fita 1

A A F

Fita 2

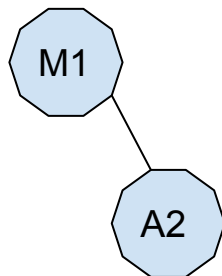
Fita 3

Fita 4

**A M A F A G A F A R O S M A F A G A F I N H O S**

Heap de 2 posições

Heap Mínimo



Entrada

Fita 1

A A F

Fita 2

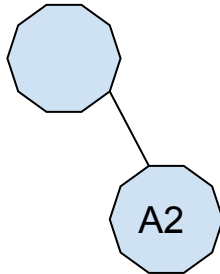
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Fita 4

**A M A F A G A F A R O S M A F A G A F I N H O S**

Heap de 2 posições

Heap Mínimo



Entrada

Fita 1

A A F M

Fita 2

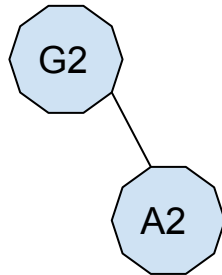
Fita 3

Fita 4

**A M A F A G A F A R O S M A F A G A F I N H O S**

Heap de 2 posições

Heap Mínimo



Entrada

Fita 1

A A F M

Fita 2

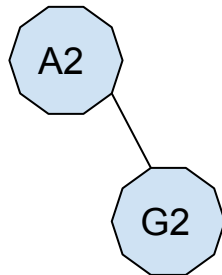
Fita 3

Fita 4

**A M A F A G A F A R O S M A F A G A F I N H O S**

Heap de 2 posições

Heap Mínimo



Entrada

Fita 1

A A F M

Fita 2

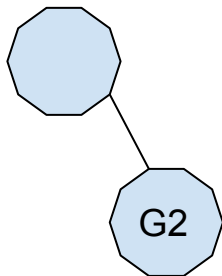
Fita 3

Fita 4

**A M A F A G A F A R O S M A F A G A F I N H O S**

Heap de 2 posições

Heap Mínimo



Entrada

Fita 1

A A F M

Fita 2

A

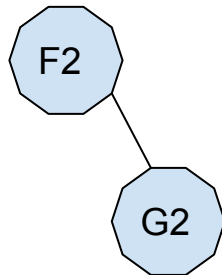
Fita 3

Fita 4

**A M A F A G A F A R O S M A F A G A F I N H O S**

Heap de 2 posições

Heap Mínimo



Entrada

Fita 1

A A F M

Fita 2

A

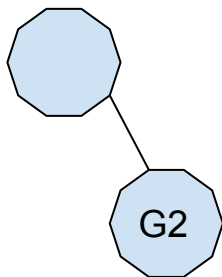
Fita 3

Fita 4

**A M A F A G A F A R O S M A F A G A F I N H O S**

Heap de 2 posições

Heap Mínimo



Entrada

Fita 1

A A F M

Fita 2

A F

Fita 3

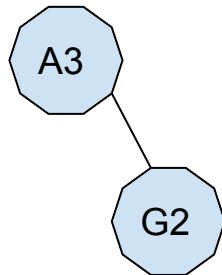
Fita 4



**A M A F A G A F A R O S M A F A G A F I N H O S**

Heap de 2 posições

Heap Mínimo



Entrada

Fita 1

A A F M

Fita 2

A F

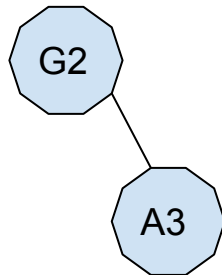
Fita 3

Fita 4

**A M A F A G A F A R O S M A F A G A F I N H O S**

Heap de 2 posições

Heap Mínimo



Entrada

Fita 1

A A F M

Fita 2

A F

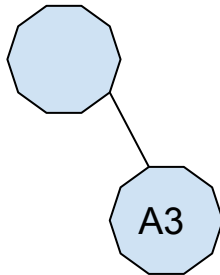
Fita 3

Fita 4

**A M A F A G A F A R O S M A F A G A F I N H O S**

Heap de 2 posições

Heap Mínimo



Entrada

Fita 1

A A F M

Fita 2

A F G

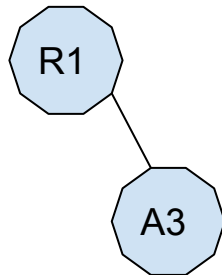
Fita 3

Fita 4

**A M A F A G A F A R O S M A F A G A F I N H O S**

Heap de 2 posições

Heap Mínimo



Entrada

Fita 1

A A F M

Fita 2

A F G

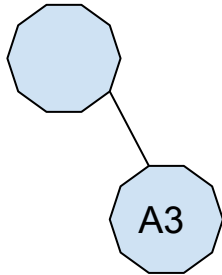
Fita 3

Fita 4

**A M A F A G A F A R O S M A F A G A F I N H O S**

Heap de 2 posições

Heap Mínimo



Entrada

Fita 1

A A F M R

Fita 2

A F G

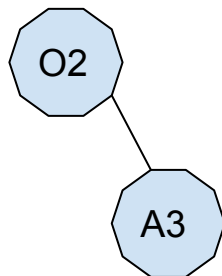
Fita 3

Fita 4

**A M A F A G A F A R O S M A F A G A F I N H O S**

Heap de 2 posições

Heap Mínimo



Entrada

Fita 1

A A F M R

Fita 2

A F G

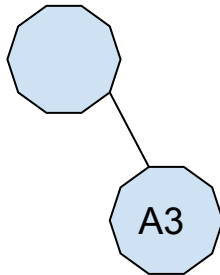
Fita 3

Fita 4

**A M A F A G A F A R O S M A F A G A F I N H O S**

Heap de 2 posições

Heap Mínimo



Entrada

Fita 1

A A F M R

Fita 2

A F G O

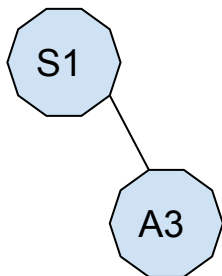
Fita 3

Fita 4

**A M A F A G A F A R O S M A F A G A F I N H O S**

Heap de 2 posições

Heap Mínimo



Entrada

Fita 1

A A F M R

Fita 2

A F G O

Fita 3

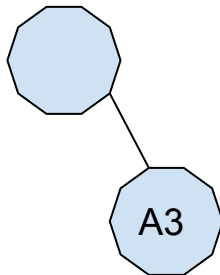
Fita 4



**A M A F A G A F A R O S M A F A G A F I N H O S**

Heap de 2 posições

Heap Mínimo



Entrada

Fita 1

A A F M R S

Fita 2

A F G O

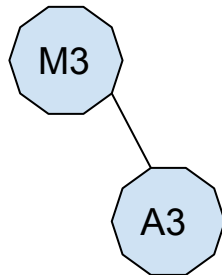
Fita 3

Fita 4

**A M A F A G A F A R O S M A F A G A F I N H O S**

Heap de 2 posições

Heap Mínimo



Entrada

Fita 1

A A F M R S

Fita 2

A F G O

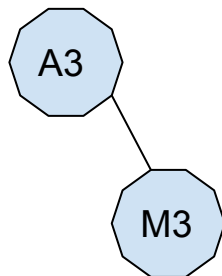
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Fita 4

**A M A F A G A F A R O S M A F A G A F I N H O S**

Heap de 2 posições

Heap Mínimo



Entrada

Fita 1

A A F M R S

Fita 2

A F G O

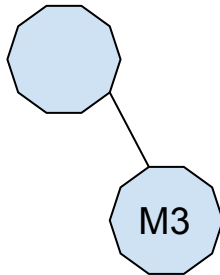
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Fita 4

**A M A F A G A F A R O S M A F A G A F I N H O S**

Heap de 2 posições

Heap Mínimo



Entrada

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A A F M R S

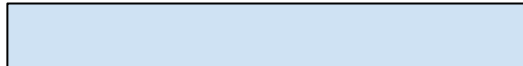
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A F G O

Fita 3

A

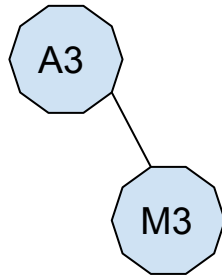
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**A M A F A G A F A R O S M A F A G A F I N H O S**

Heap de 2 posições

Heap Mínimo



Entrada

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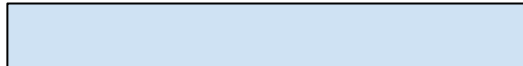
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A F G O

Fita 3

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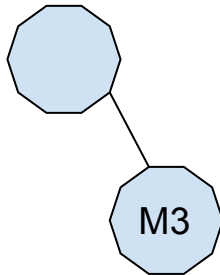
Fita 4



**A M A F A G A F A R O S M A F A G A F I N H O S**

Heap de 2 posições

Heap Mínimo



Entrada

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A A F M R S

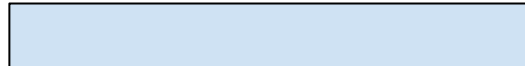
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Fita 3

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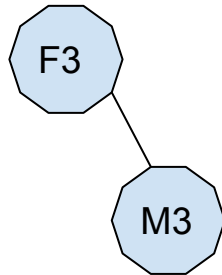
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**A M A F A G A F A R O S M A F A G A F I N H O S**

Heap de 2 posições

Heap Mínimo



Entrada

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A A F M R S

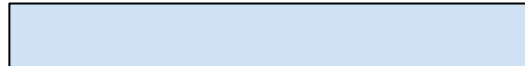
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A F G O

Fita 3

A A

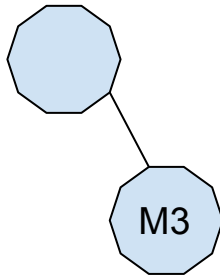
Fita 4



**A M A F A G A F A R O S M A F A G A F I N H O S**

Heap de 2 posições

Heap Mínimo



Entrada

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A A F M R S

Fita 2

A F G O

Fita 3

A A F

Fita 4

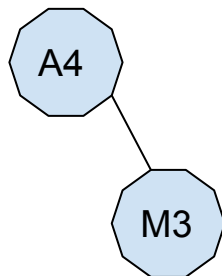




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Heap de 2 posições

Heap Mínimo



Entrada

Fita 1

A A F M R S

Fita 2

A F G O

Fita 3

A A F

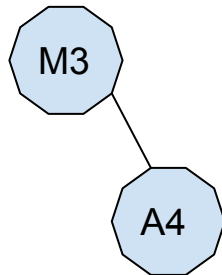
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**A M A F A G A F A R O S M A F A G A F I N H O S**

Heap de 2 posições

Heap Mínimo



Entrada

Fita 1

A A F M R S

Fita 2

A F G O

Fita 3

A A F

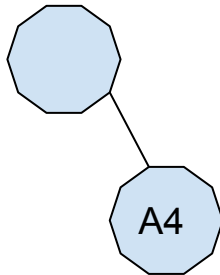
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**A M A F A G A F A R O S M A F A G A F I N H O S**

Heap de 2 posições

Heap Mínimo



Entrada

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A A F M R S

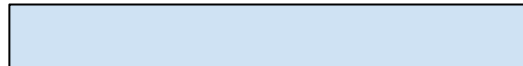
Fita 2

A F G O

Fita 3

A A F M

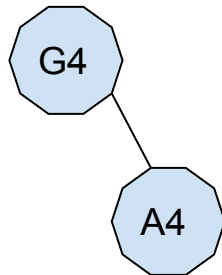
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**A M A F A G A F A R O S M A F A G A F I N H O S**

Heap de 2 posições

Heap Mínimo



Entrada

Fita 1

A A F M R S

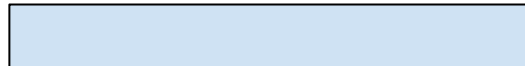
Fita 2

A F G O

Fita 3

A A F M

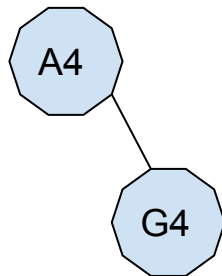
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**A M A F A G A F A R O S M A F A G A F I N H O S**

Heap de 2 posições

Heap Mínimo



Entrada

Fita 1

A A F M R S

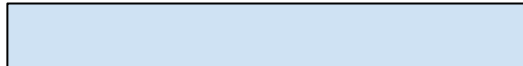
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A F G O

Fita 3

A A F M

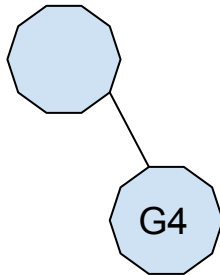
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**A M A F A G A F A R O S M A F A G A F I N H O S**

Heap de 2 posições

Heap Mínimo



Entrada

Fita 1

A A F M R S | A

Fita 2

A F G O

Fita 3

A A F M

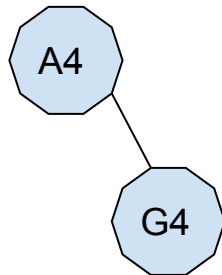
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**A M A F A G A F A R O S M A F A G A F I N H O S**

Heap de 2 posições

Heap Mínimo



Entrada

Fita 1

A A F M R S | A

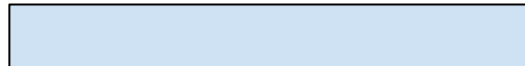
Fita 2

A F G O

Fita 3

A A F M

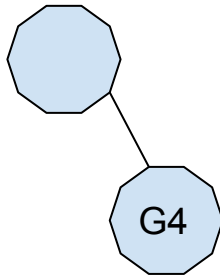
Fita 4



**A M A F A G A F A R O S M A F A G A F I N H O S**

Heap de 2 posições

Heap Mínimo



Entrada

Fita 1

A A F M R S | A A

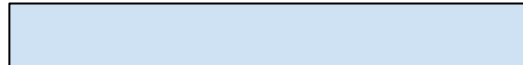
Fita 2

A F G O

Fita 3

A A F M

Fita 4

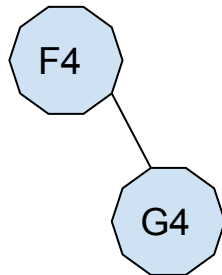




**A M A F A G A F A R O S M A F A G A F I N H O S**

Heap de 2 posições

Heap Mínimo



Entrada

Fita 1

A A F M R S | A A

Fita 2

A F G O

Fita 3

A A F M

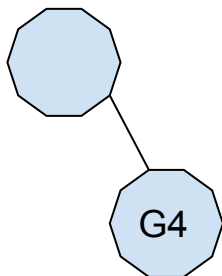
Fita 4



**A M A F A G A F A R O S M A F A G A F I N H O S**

Heap de 2 posições

Heap Mínimo



Entrada

Fita 1

A A F M R S | A A F

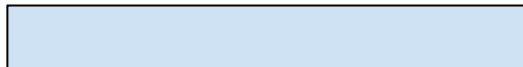
Fita 2

A F G O

Fita 3

A A F M

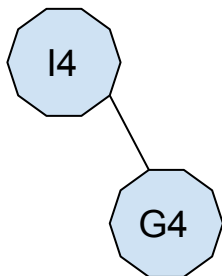
Fita 4



**A M A F A G A F A R O S M A F A G A F I N H O S**

Heap de 2 posições

Heap Mínimo



Entrada

Fita 1

A A F M R S | A A F

Fita 2

A F G O

Fita 3

A A F M

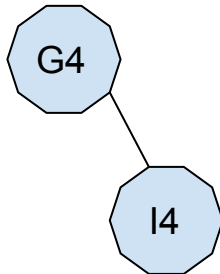
Fita 4



**A M A F A G A F A R O S M A F A G A F I N H O S**

Heap de 2 posições

Heap Mínimo



Entrada

Fita 1

A A F M R S | A A F

Fita 2

A F G O

Fita 3

A A F M

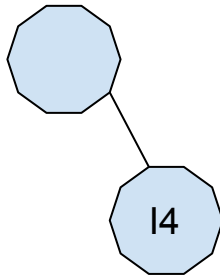
Fita 4



**A M A F A G A F A R O S M A F A G A F I N H O S**

Heap de 2 posições

Heap Mínimo



Entrada

Fita 1

A A F M R S | A A F G

Fita 2

A F G O

Fita 3

A A F M

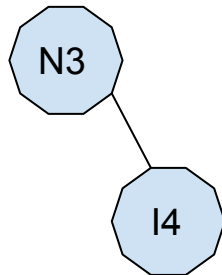
Fita 4



**A M A F A G A F A R O S M A F A G A F I N H O S**

Heap de 2 posições

Heap Mínimo



Entrada

Fita 1

A A F M R S | A A F G

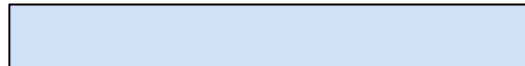
Fita 2

A F G O

Fita 3

A A F M

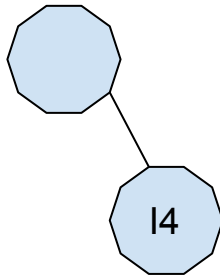
Fita 4



**A M A F A G A F A R O S M A F A G A F I N H O S**

Heap de 2 posições

Heap Mínimo



Entrada

Fita 1

A A F M R S | A A F G

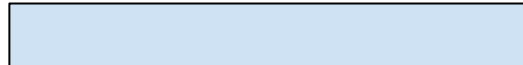
Fita 2

A F G O

Fita 3

A A F M N

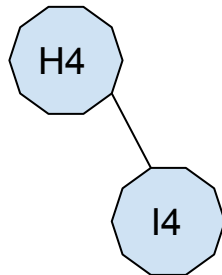
Fita 4



**A M A F A G A F A R O S M A F A G A F I N H O S**

Heap de 2 posições

Heap Mínimo



Entrada

Fita 1

A A F M R S | A A F G

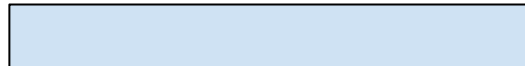
Fita 2

A F G O

Fita 3

A A F M N

Fita 4

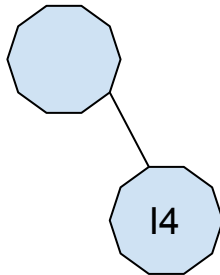




**A M A F A G A F A R O S M A F A G A F I N H O S**

Heap de 2 posições

Heap Mínimo



Entrada

Fita 1

A A F M R S | A A F G H

Fita 2

A F G O

Fita 3

A A F M N

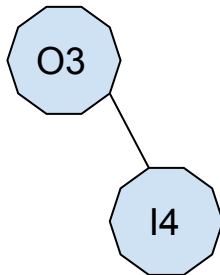
Fita 4



**A M A F A G A F A R O S M A F A G A F I N H O S**

Heap de 2 posições

Heap Mínimo



Entrada

Fita 1

A A F M R S | A A F G H

Fita 2

A F G O

Fita 3

A A F M N

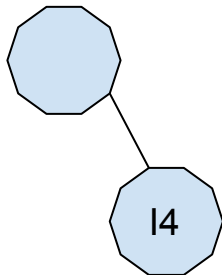
Fita 4



**A M A F A G A F A R O S M A F A G A F I N H O S**

Heap de 2 posições

Heap Mínimo



Entrada

Fita 1

A A F M R S | A A F G H

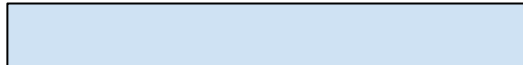
Fita 2

A F G O

Fita 3

A A F M N O

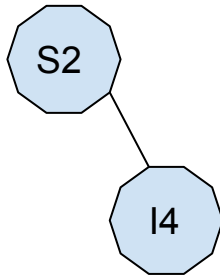
Fita 4



**A M A F A G A F A R O S M A F A G A F I N H O S**

Heap de 2 posições

Heap Mínimo



Entrada

Fita 1

A A F M R S | A A F G H

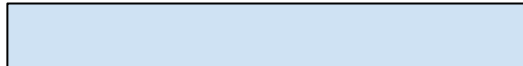
Fita 2

A F G O

Fita 3

A A F M N O

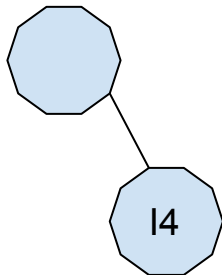
Fita 4



**A M A F A G A F A R O S M A F A G A F I N H O S**

Heap de 2 posições

Heap Mínimo



Entrada

Fita 1

A A F M R S | A A F G H

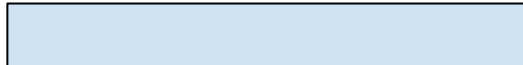
Fita 2

A F G O S

Fita 3

A A F M N O

Fita 4



**A M A F A G A F A R O S M A F A G A F I N H O S**

Heap de 1 posição

Heap Mínimo



Entrada

Fita 1

A A F M R S | A A F G H

Fita 2

A F G O S

Fita 3

A A F M N O

Fita 4



**A M A F A G A F A R O S M A F A G A F I N H O S**

Heap deletado

Heap Mínimo

Entrada

Fita 1

A A F M R S | A A F G H I

Fita 2

A F G O S

Fita 3

A A F M N O

Fita 4

A M A F A G A F A R O S M A F A G A F I N H O S

- Intercalação balanceada de 3 caminhos

Entrada

Fita 1

A A F M R S | A A F G H I

Fita 2

A F G O S

Fita 3

A A F M N O

Saída

Fita 4

A A A A A F F F G M M N O O R S S



A M A F A G A F A R O S M A F A G A F I N H O S

- Intercalação balanceada de 3 caminhos

Entrada

Saída

Fita 1

A A F G H I

Fita 2

A A A A A A A A F F F F G G H I M M N O O R S S

Fita 4

A A A A A F F F G M M N O O R S S

Fita 3

Desordenado

**A M A F A G A F A R O S M A F A G A F I N H O S**

Ordenado

Fita 2

**A A A A A A A A F F F F G G H I M M N O O R S S**