

Øving 7

Graf 1:

```
Graph 1
Maximum flow from 0 to 7 with Edmond Karp's algorithm.
Increase in flow | Flow augmented path
      2          | [0, 4, 3, 7]
      1          | [0, 1, 2, 3, 7]
      1          | [0, 4, 5, 6, 7]
      1          | [0, 1, 2, 3, 6, 7]
      1          | [0, 1, 4, 5, 6, 7]
      1          | [0, 1, 2, 3, 5, 6, 7]
      1          | [0, 1, 2, 4, 5, 6, 7]
      2          | [0, 1, 2, 3, 4, 5, 6, 7]
Maximum flow: 10
```

Figur 1: Utskrift over ulike veiene i graf 1. Max flow er på 10.

Graf 2:

```
Graph 2
Maximum flow from 0 to 1 with Edmond Karp's algorithm.
Increase in flow | Flow augmented path
      10         | [0, 8, 9, 1]
      10         | [0, 2, 3, 9, 8, 14, 15, 1]
       5         | [0, 2, 3, 4, 5, 8, 9, 12, 13, 14, 15, 1]
       2         | [0, 2, 3, 4, 5, 6, 7, 9, 8, 10, 11, 12, 13, 14, 15, 1]
Maximum flow: 27
```

Figur 2: Utskrift over ulike veiene i graf 2. Max flow er på 27.

Graf 3:

```
Graph 3
Maximum flow from 0 to 1 with Edmond Karp's algorithm.
Increase in flow | Flow augmented path
      10         | [0, 8, 9, 1]
      15         | [0, 2, 3, 9, 8, 14, 15, 1]
      11         | [0, 2, 3, 4, 5, 8, 9, 12, 13, 14, 15, 1]
       6         | [0, 2, 3, 4, 5, 6, 7, 9, 8, 10, 11, 12, 13, 14, 15, 1]
Maximum flow: 42
```

Figur 3: Utskrift over ulike veiene i graf 3. Max Flow er 42.

Graf 4:

```
Graph 4
Maximum flow from 0 to 7 with Edmond Karp's algorithm.
Increase in flow | Flow augmented path
      2          | [0, 4, 3, 7]
      1          | [0, 1, 2, 3, 7]
      1          | [0, 4, 5, 6, 7]
      1          | [0, 1, 2, 3, 6, 7]
      1          | [0, 1, 4, 5, 6, 7]
      1          | [0, 1, 2, 3, 5, 6, 7]
      1          | [0, 1, 2, 4, 5, 6, 7]
      3          | [0, 1, 2, 3, 4, 5, 6, 7]
Maximum flow: 11
```

Figur 4: Utskrift over ulike veiene i graf 4. Max Flow er 11.

Graf 5:

```
Graph 5
Maximum flow from 0 to 7 with Edmond Karp's algorithm.
Increase in flow | Flow augmented path
      10          | [0, 2, 3, 7]
      25          | [0, 2, 4, 7]
      10          | [0, 5, 6, 7]
      40          | [0, 5, 6, 1, 7]
      5           | [0, 2, 4, 6, 1, 7]
Maximum flow: 90
```

Figur 5: Utskrift over ulike veiene i graf 5. Max Flow er 90.