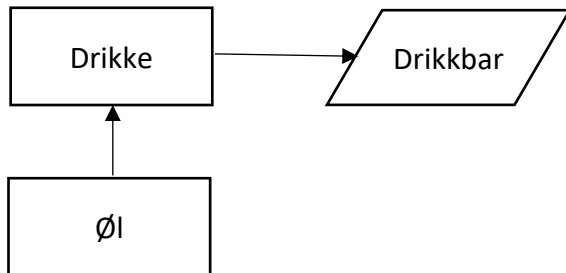


Løsningsforslag – uke 5

(fra gjennomgang i gruppetimen)

1



Drikkbar.java

```

interface DrikkBar {
    void drikkGlass();
    void fyllOpp();
}
  
```

Drikke.java

```

class Drikke implements DrikkBar {
    protected double max;
    protected double innhold;

    public Drikke(double max){
        this.max = max;
        this.innhold = max;
    }

    public void fyllOpp(){
        innhold = max;
    }

    public void drikkGlass(){
        if (innhold < 2) {
            innhold = 0;
        } else {
            innhold -= 2;
        }
    }

    public String toString(){
        return "Saa mye igjen av drikken: " + innhold;
    }
}
  
```

Ol.java

```

class Ol extends Drikke {
    public Ol(int max){
        super(max);
    }

    @Override
    public void drikkGlass(){
  
```

```

        if (innhold < 5) {
            innhold = 0;
        } else {
            innhold -= 5;
        }
    }

    @Override
    public String toString(){
        return "Saa mye igjen av oelen: " + innhold;
    }
}

```

TestInterface.java

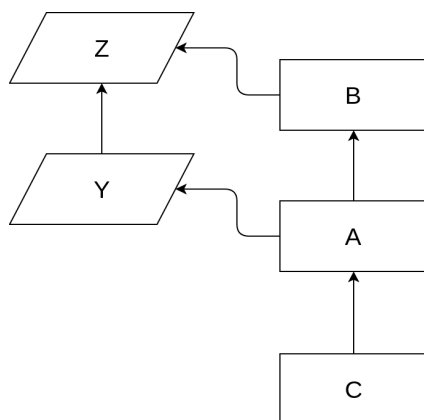
```

class TestInterface {
    public static void main(String[] args) {
        Drikke vann = new Drikke(10);
        vann.drikkGlass();
        System.out.println(vann);

        Drikke ringnes = new Ol(40);
        ringnes.drikkGlass();
        System.out.println(ringnes);
    }
}

```

2
a)



b)

Siden C arver A vil det si at den også arver grensesnittet Y (som er en utvidelse av Z).

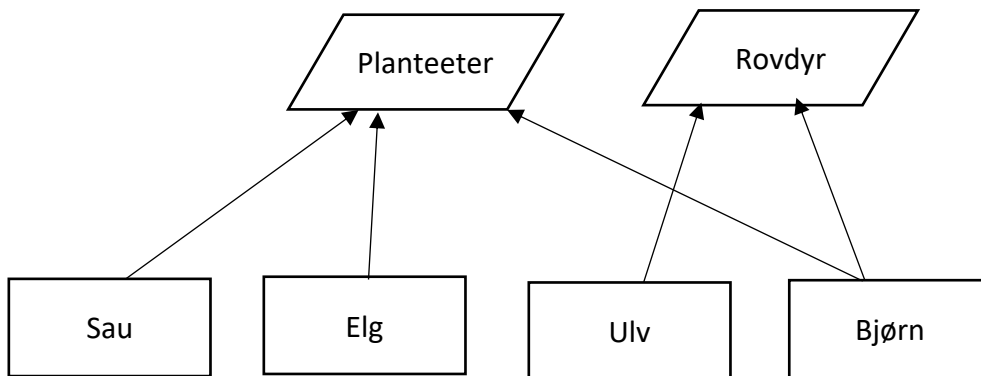
3

```

interface ErPattedyr{}
interface HarPels extends ErPattedyr{}
class Dyr{}
class Hund extends Dyr implements HarPels{}
class Katt extends Dyr implements HarPels{}
class Havdyr extends Dyr{}
class Hval extends Havdyr implements ErPattedyr{}
class Fisk extends Havdyr{}

```

4

*Planteeter.java*

```
interface Planteeter {
    void beskytteSeg();
}
```

Rovdyr.java

```
interface Rovdyr {
    void jakt();
}
```

Sau.java

```
class Sau implements Planteeter {
    public void beskytteSeg(){
        System.out.println("Sauen loper");
    }
}
```

Elg.java

```
class Elg implements Planteeter {
    public void beskytteSeg(){
        System.out.println("Elgen stanger angriperen");
    }
}
```

Ulv.java

```
class Ulv implements Rovdyr {
    public void jakt(){
        System.out.println("Ulven jakter");
    }
}
```

Bjørn.java

```
class Bjorn implements Planteeter, Rovdyr{
    public void beskytteSeg(){
        System.out.println("Bjornen klorer angriperen");
    }

    public void jakt(){
        System.out.println("Bjornen jakter");
    }
}
```

Dyrene.java

```
class Dyrene {
    public static void main(String[] a){
        Rovdyr [] r = new Rovdyr[2];
        Planteeter [] p = new Planteeter[3];

        r[0] = new Ulv();
        r[1] = new Bjorn();

        p[0] = new Sau();
        Planteeter elg = new Elg();
        p[1] = elg;

        p[2] = (Planteeter) r[1];

        System.out.println("Alle Rovdyr:");
        for(Rovdyr ro: r){
            ro.jakt();
        }

        System.out.println("Alle planteetere:");
        for(int i = 0; i < p.length; i++){
            p[i].beskytteSeg();
        }
    }
}
```