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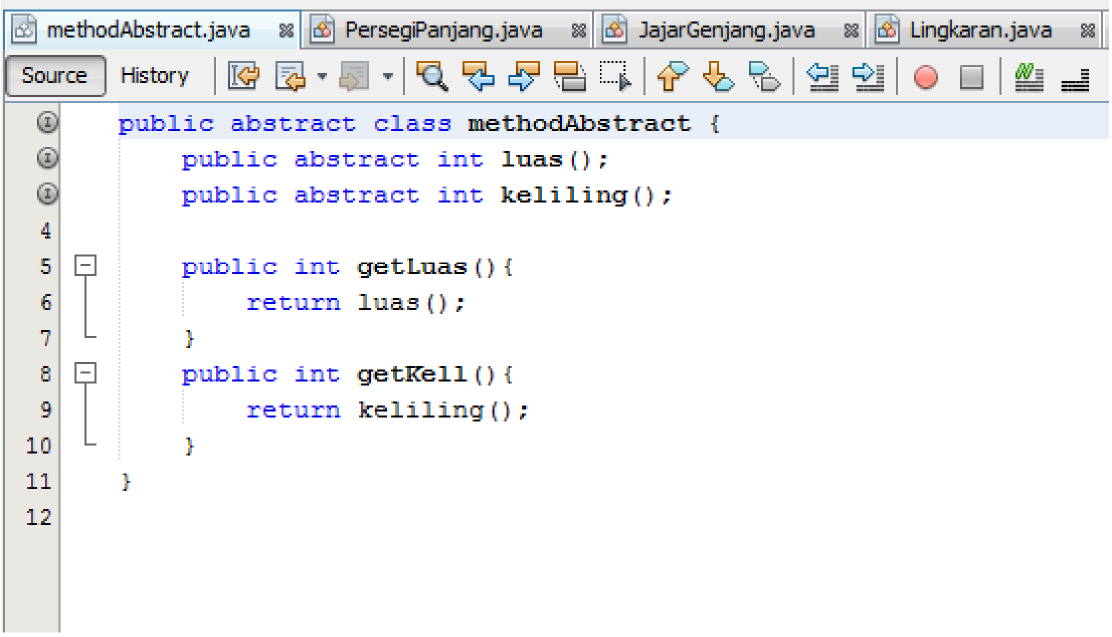
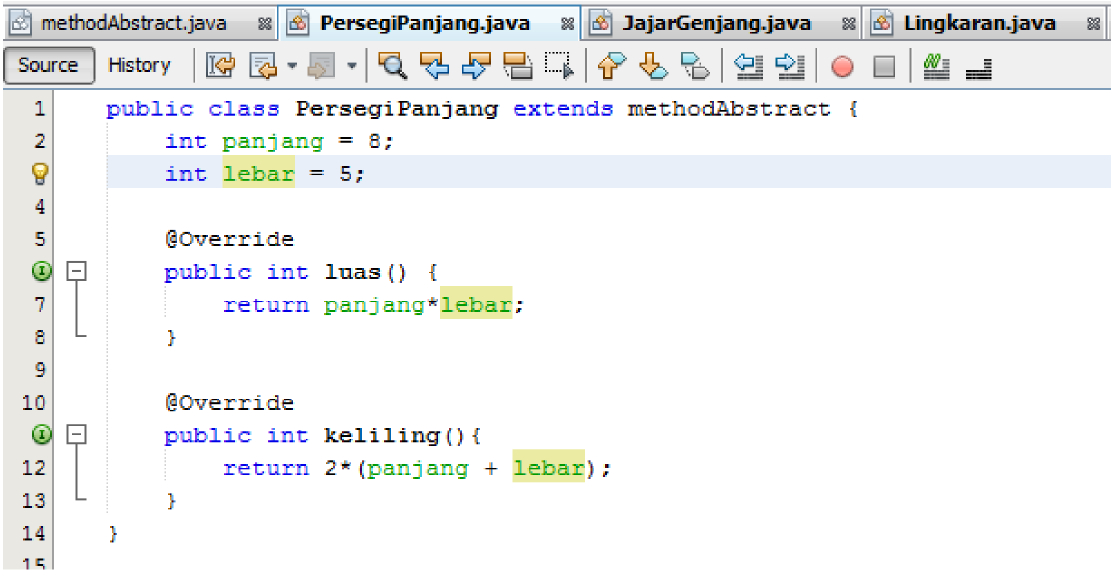
Kelas : B

Modul : Modul 9 (Abstract Class)

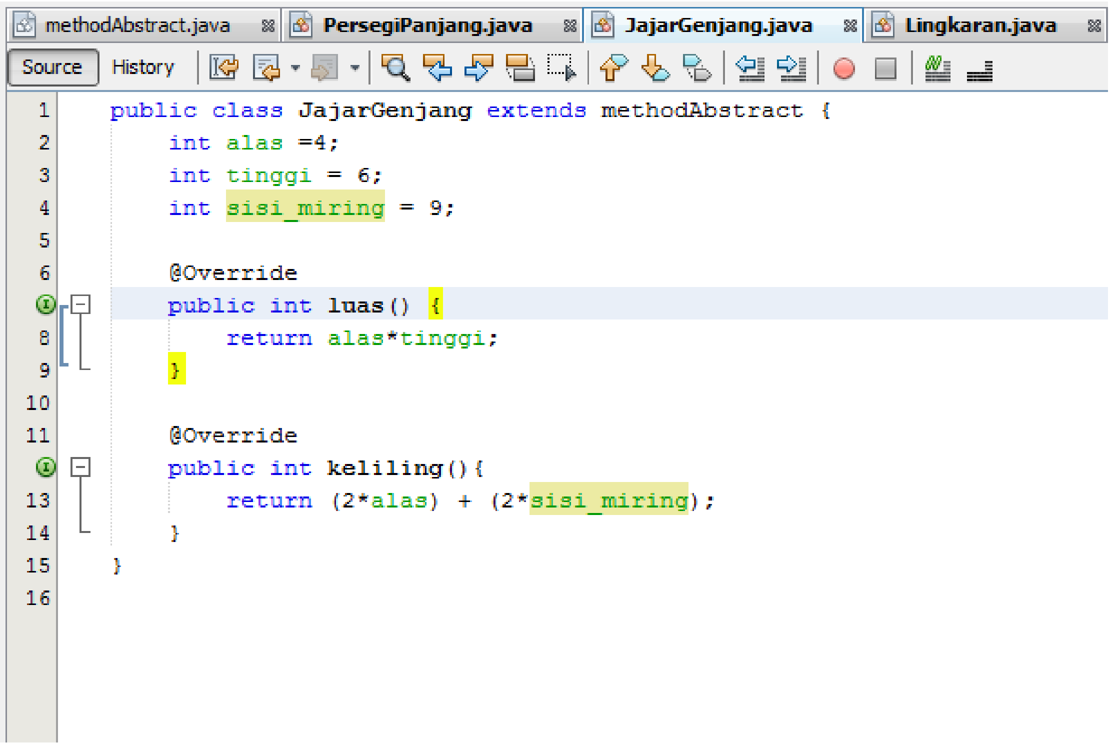
1. Latihan :



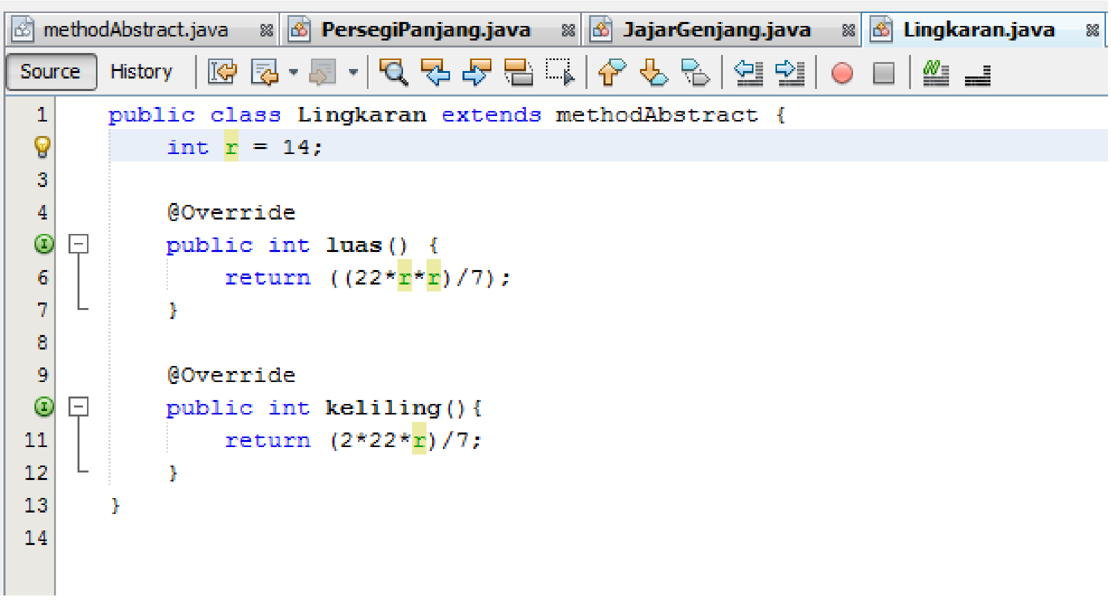
```java
public abstract class methodAbstract {
    public abstract int luas();
    public abstract int keliling();

    public int getLuas(){
        return luas();
    }
    public int getKell(){
        return keliling();
    }
}
```



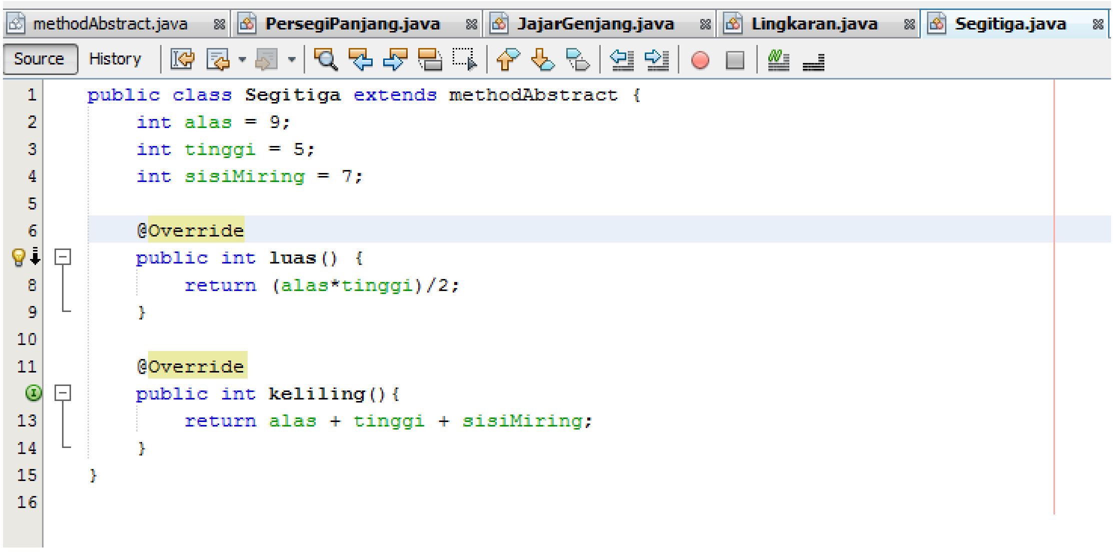
```java
public class PersegiPanjang extends methodAbstract {
    int panjang = 8;
    int lebar = 5;

    @Override
    public int luas() {
        return panjang*lebar;
    }

    @Override
    public int keliling(){
        return 2*(panjang + lebar);
    }
}
```



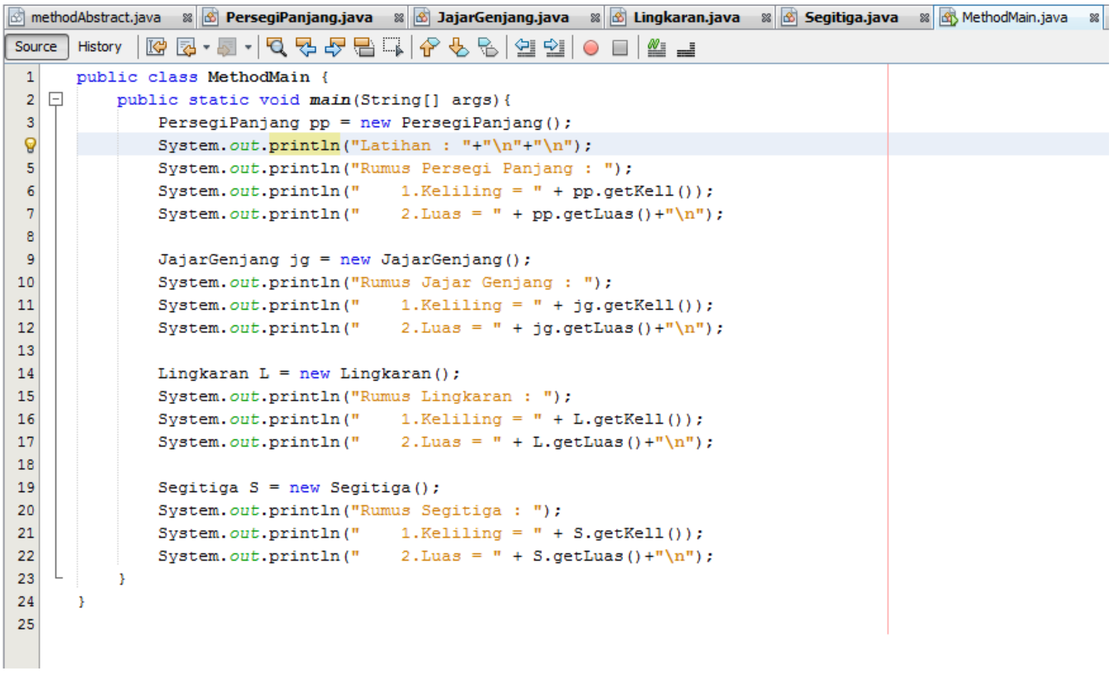
```java
public class JajarGenjang extends methodAbstract {
    int alas =4;
    int tinggi = 6;
    int sisi_miring = 9;

    @Override
    public int luas() {
        return alas*tinggi;
    }

    @Override
    public int keliling(){
        return (2*alas) + (2*sisi_miring);
    }
}
```



```
public class Lingkaran extends methodAbstract {
    int r = 14;

    @Override
    public int luas() {
        return ((22*r*r)/7);
    }

    @Override
    public int keliling(){
        return (2*22*r)/7;
    }
}
```

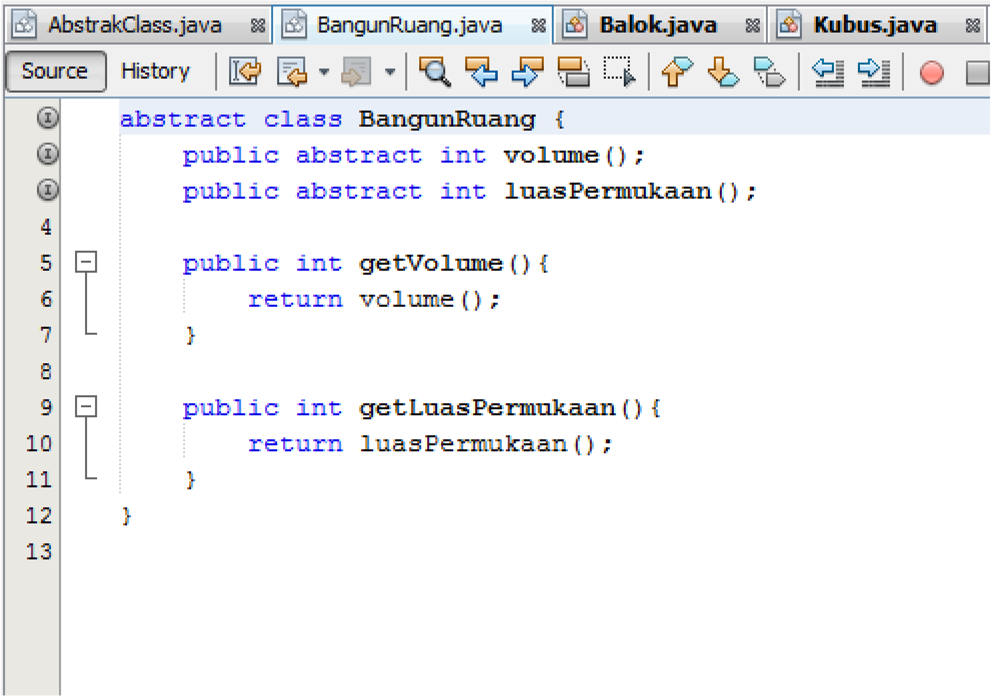


```java
public class Segitiga extends methodAbstract {
    int alas = 9;
    int tinggi = 5;
    int sisiMiring = 7;

    @Override
    public int luas() {
        return (alas*tinggi)/2;
    }

    @Override
    public int keliling(){
        return alas + tinggi + sisiMiring;
    }
}
```

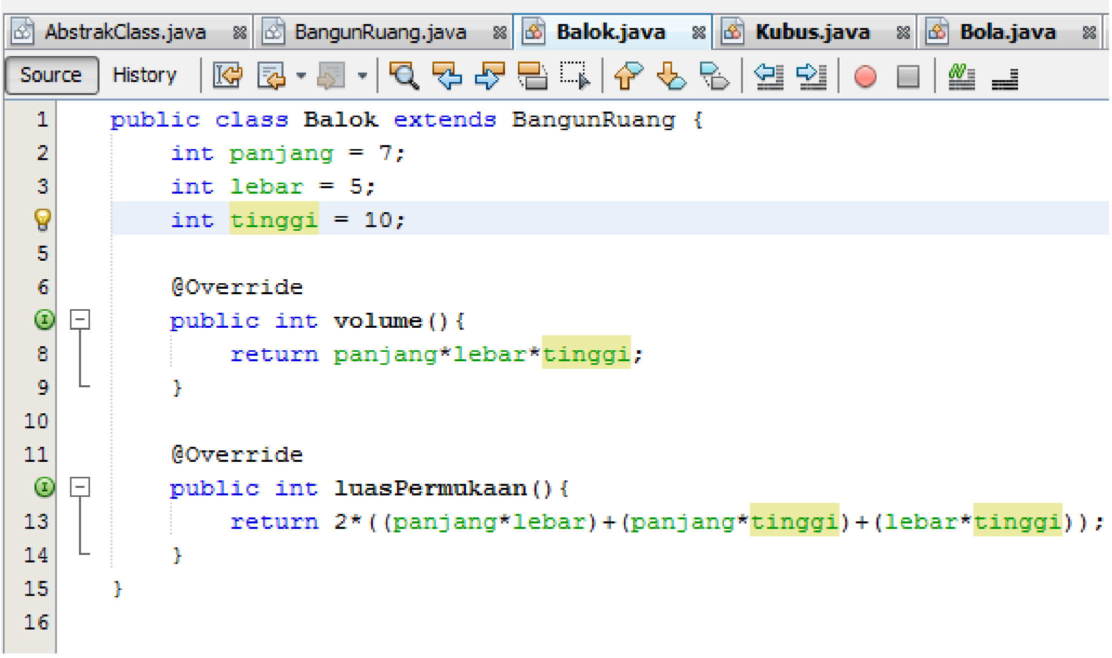


```java
public class MethodMain {
    public static void main(String[] args){
        PersegiPanjang pp = new PersegiPanjang();
        System.out.println("Latihan : "+"\n"+"\n");
        System.out.println("Rumus Persegi Panjang : ");
        System.out.println("    1.Keliling = " + pp.getKell());
        System.out.println("    2.Luas = " + pp.getLuas()+"\n");

        JajarGenjang jg = new JajarGenjang();
        System.out.println("Rumus Jajar Genjang : ");
        System.out.println("    1.Keliling = " + jg.getKell());
        System.out.println("    2.Luas = " + jg.getLuas()+"\n");

        Lingkaran L = new Lingkaran();
        System.out.println("Rumus Lingkaran : ");
        System.out.println("    1.Keliling = " + L.getKell());
        System.out.println("    2.Luas = " + L.getLuas()+"\n");

        Segitiga S = new Segitiga();
        System.out.println("Rumus Segitiga : ");
        System.out.println("    1.Keliling = " + S.getKell());
        System.out.println("    2.Luas = " + S.getLuas()+"\n");
    }
}
```

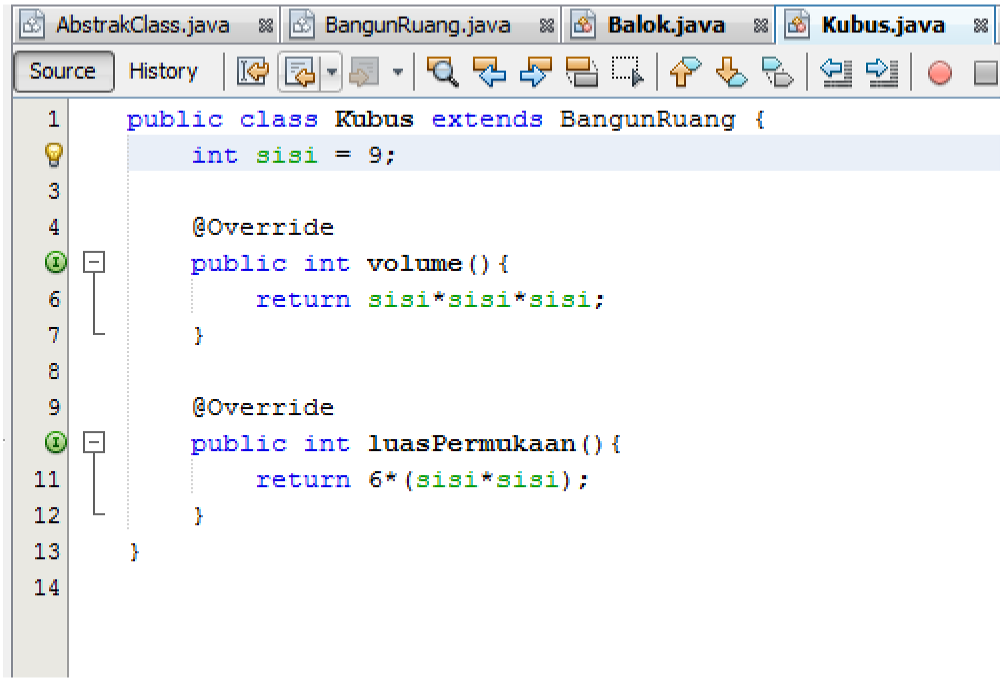
2. Tugas :



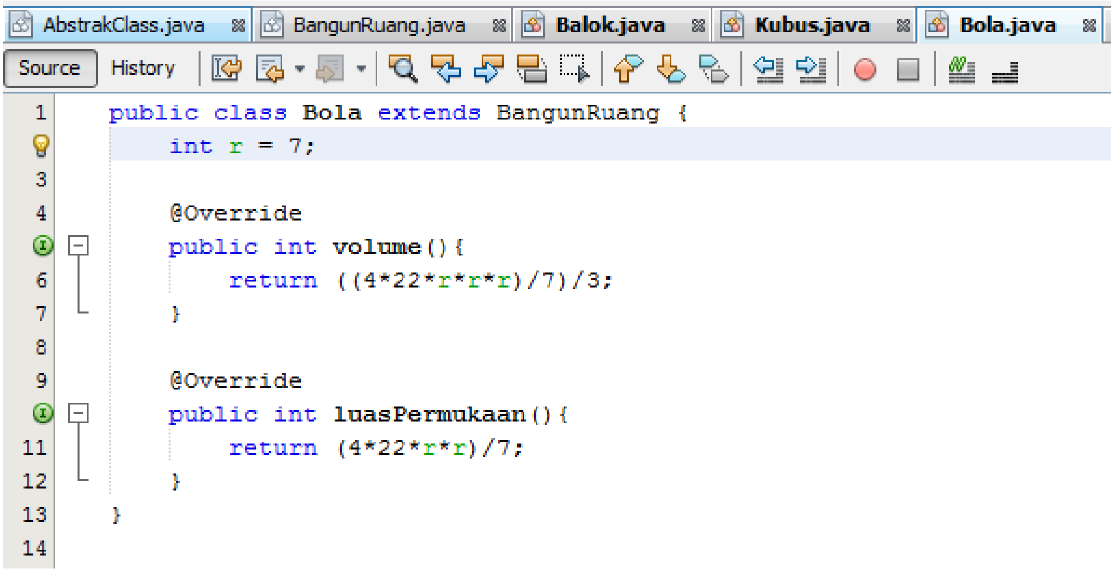
```java
abstract class BangunRuang {
    public abstract int volume();
    public abstract int luasPermukaan();

    public int getVolume(){
        return volume();
    }

    public int getLuasPermukaan(){
        return luasPermukaan();
    }
}
```



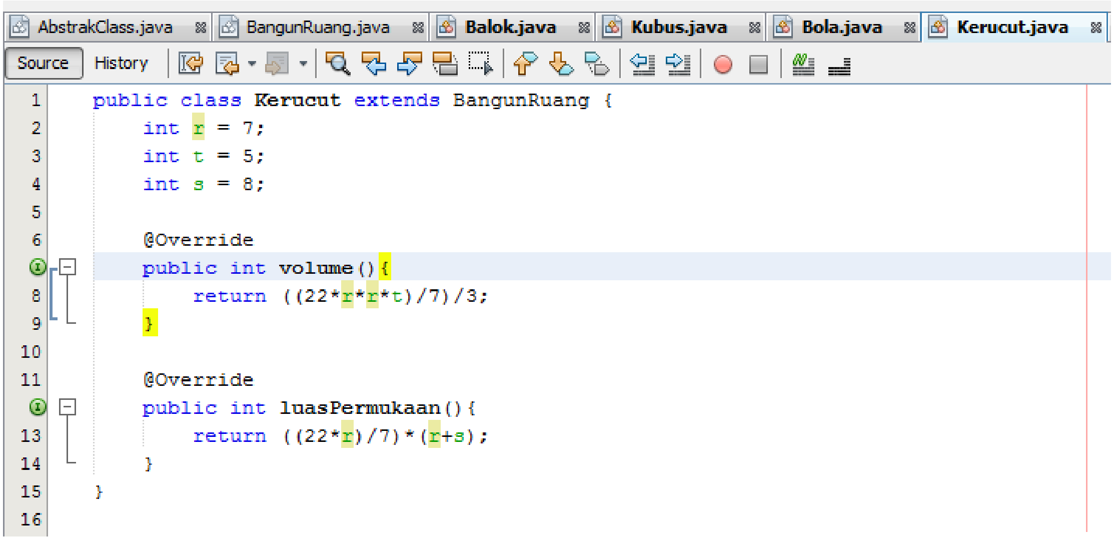
```java
public class Balok extends BangunRuang {
    int panjang = 7;
    int lebar = 5;
    int tinggi = 10;

    @Override
    public int volume(){
        return panjang*lebar*tinggi;
    }

    @Override
    public int luasPermukaan(){
        return 2*((panjang*lebar)+(panjang*tinggi)+(lebar*tinggi));
    }
}
```



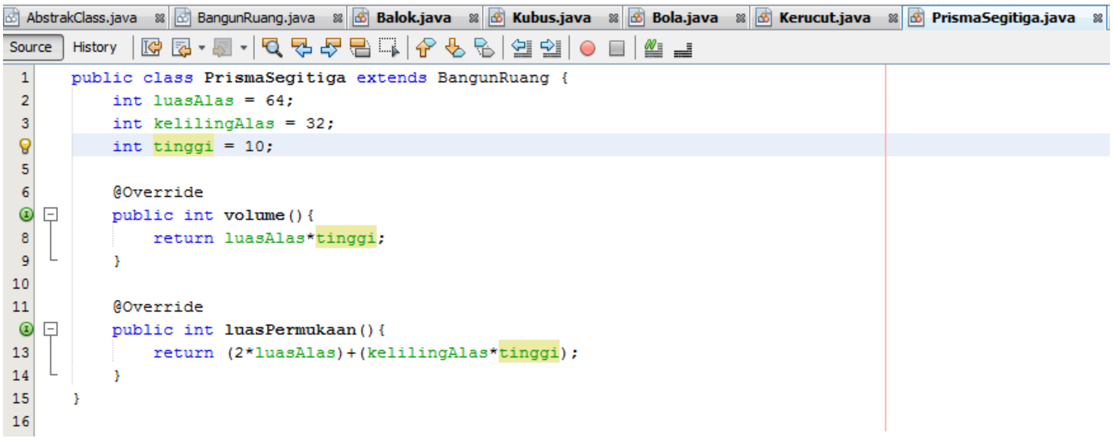
```
public class Kubus extends BangunRuang {
    int sisi = 9;

    @Override
    public int volume(){
        return sisi*sisi*sisi;
    }

    @Override
    public int luasPermukaan(){
        return 6*(sisi*sisi);
    }
}
```



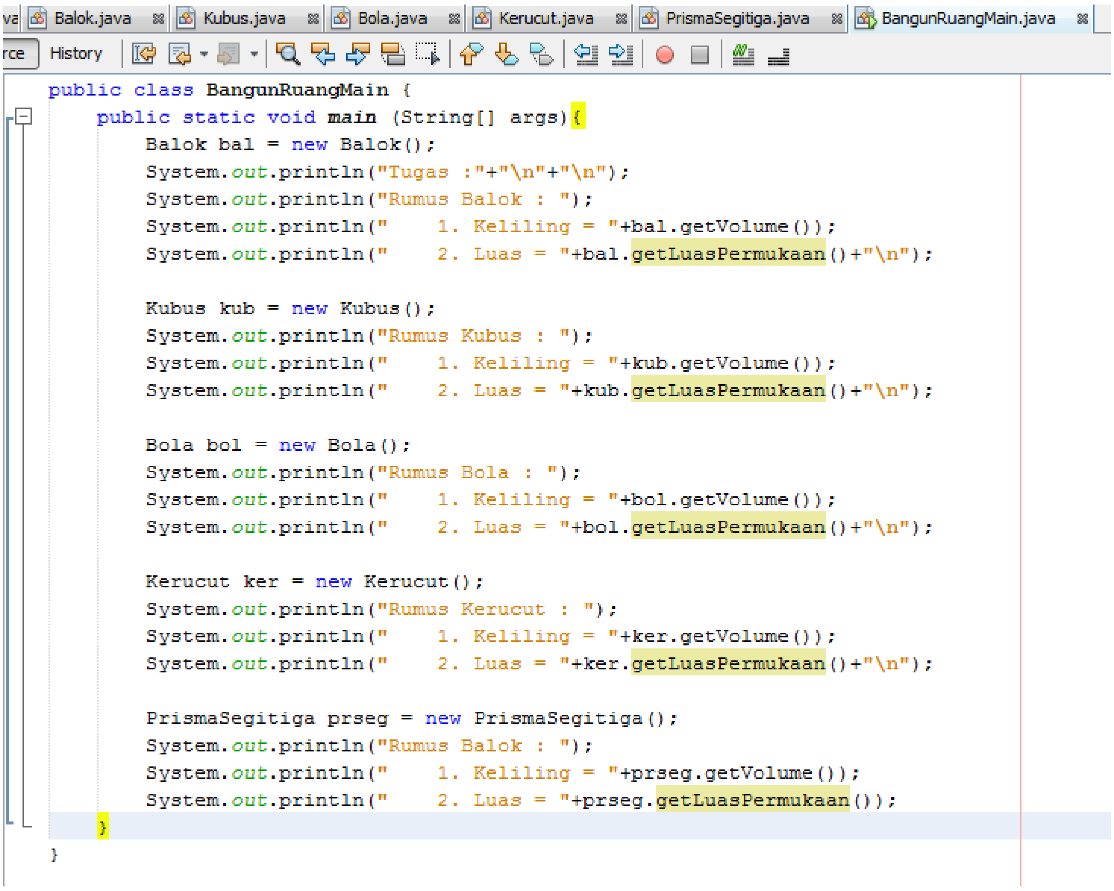
```
public class Bola extends BangunRuang {
    int r = 7;

    @Override
    public int volume(){
        return ((4*22*r*r*r)/7)/3;
    }

    @Override
    public int luasPermukaan(){
        return (4*22*r*r)/7;
    }
}
```



```java
public class Kerucut extends BangunRuang {
    int r = 7;
    int t = 5;
    int s = 8;

    @Override
    public int volume(){
        return ((22*r*r*t)/7)/3;
    }

    @Override
    public int luasPermukaan(){
        return ((22*r)/7)*(r+s);
    }
}
```



```java
public class PrismaSegitiga extends BangunRuang {
    int luasAlas = 64;
    int kelilingAlas = 32;
    int tinggi = 10;

    @Override
    public int volume(){
        return luasAlas*tinggi;
    }

    @Override
    public int luasPermukaan(){
        return (2*luasAlas)+(kelilingAlas*tinggi);
    }
}
```



```java
public class BangunRuangMain {
    public static void main (String[] args){
        Balok bal = new Balok();
        System.out.println("Tugas :"+"\n"+"\n");
        System.out.println("Rumus Balok : ");
        System.out.println("    1. Keliling = "+bal.getVolume());
        System.out.println("    2. Luas = "+bal.getLuasPermukaan()+"\n");

        Kubus kub = new Kubus();
        System.out.println("Rumus Kubus : ");
        System.out.println("    1. Keliling = "+kub.getVolume());
        System.out.println("    2. Luas = "+kub.getLuasPermukaan()+"\n");

        Bola bol = new Bola();
        System.out.println("Rumus Bola : ");
        System.out.println("    1. Keliling = "+bol.getVolume());
        System.out.println("    2. Luas = "+bol.getLuasPermukaan()+"\n");

        Kerucut ker = new Kerucut();
        System.out.println("Rumus Kerucut : ");
        System.out.println("    1. Keliling = "+ker.getVolume());
        System.out.println("    2. Luas = "+ker.getLuasPermukaan()+"\n");

        PrismaSegitiga prseg = new PrismaSegitiga();
        System.out.println("Rumus Balok : ");
        System.out.println("    1. Keliling = "+prseg.getVolume());
        System.out.println("    2. Luas = "+prseg.getLuasPermukaan());
    }
}
```