

```

public class TestSwapArrayInt {

    public static void swap(int[] xs) {

        int[] ys;
        ys = new int[2];

        ys[0] = xs[1];
        ys[1] = xs[0];

        xs = ys;

    }

    public static void main(String[] args) {

        int[] xs;
        xs = new int[2];

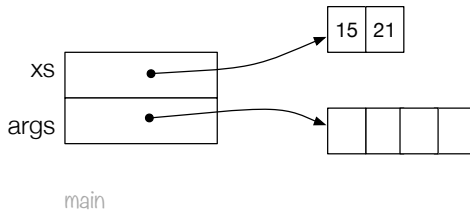
        xs[0] = 15;
        xs[1] = 21;

        swap(xs);

        System.out.println(xs[0]);
        System.out.println(xs[1]);

    }
}

```



Working memory for the method `main`.

```

public class TestSwapArrayInt {

    public static void swap(int[] xs) {

        int[] ys;
        ys = new int[2];

        ys[0] = xs[1];
        ys[1] = xs[0];

        xs = ys;

    }

    public static void main(String[] args) {

        int[] xs;
        xs = new int[2];

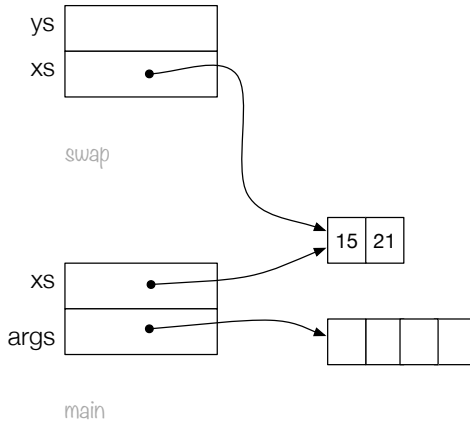
        xs[0] = 15;
        xs[1] = 21;

        swap(xs);

        System.out.println(xs[0]);
        System.out.println(xs[1]);

    }
}

```



Calling the method **swap**. The value of the **actual parameter** is copied to the **formal parameter**.

```

public class TestSwapArrayInt {

    public static void swap(int[] xs) {

        int[] ys;
        ys = new int[2];

        ys[0] = xs[1];
        ys[1] = xs[0];

        xs = ys;

    }

    public static void main(String[] args) {

        int[] xs;
        xs = new int[2];

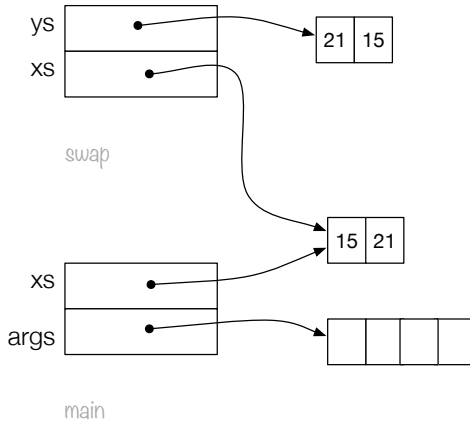
        xs[0] = 15;
        xs[1] = 21;

        swap(xs);

        System.out.println(xs[0]);
        System.out.println(xs[1]);

    }
}

```



Creating an array and saving the reference into the variable `ys`. Copying `xs[1]` into `ys[0]` and `xs[0]` into `ys[1]`.

```

public class TestSwapArrayInt {

    public static void swap(int[] xs) {

        int[] ys;
        ys = new int[2];

        ys[0] = xs[1];
        ys[1] = xs[0];

        xs = ys;
    }

    public static void main(String[] args) {

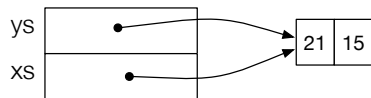
        int[] xs;
        xs = new int[2];

        xs[0] = 15;
        xs[1] = 21;

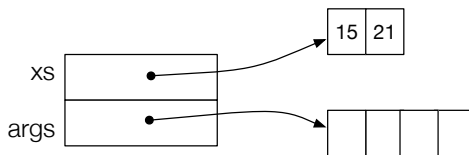
        swap(xs);

        System.out.println(xs[0]);
        System.out.println(xs[1]);
    }
}

```



swap



main

Copying the content of **ys** into **xs** (the formal parameter of the method **swap**).

```

public class TestSwapArrayInt {

    public static void swap(int[] xs) {

        int[] ys;
        ys = new int[2];

        ys[0] = xs[1];
        ys[1] = xs[0];

        xs = ys;

    }

    public static void main(String[] args) {

        int[] xs;
        xs = new int[2];

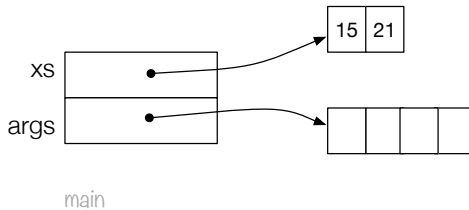
        xs[0] = 15;
        xs[1] = 21;

        swap(xs);

        System.out.println(xs[0]);
        System.out.println(xs[1]);

    }
}

```



Returning to the method **main**. The working memory for **swap** is destroyed. Printing **xs[0]** and **xs[1]** (the local variable **xs** for the method **main**).