## Shake and Make Dice



The instructions say:

- The fastest, easiest-to-learn dice game you'll ever play!
- Give the dice dome a shake and watch as the dice settle into their slots to reveal a random combination of numbers.
- Take turns to see who can get the best score - Highest total, 1 pair, 2 pair, straight, 3-of-a-kind, 4-of-a-kind...
- Do you have the luck to shake and make the best roll?
- Fast-paced, pocket-sized, and open to endless game variations - You'll never want to go anywhere without your Shake \& Make Dice!

Since these are obviously accurate (how will we live without constant access to Shake and Make Dice?), we'd better make an app so that we can play on our phones at all times, in all places.

Please use a method to update the dice. Call it in the "Roll" button.

```
public void updatePic (ImageView i, int num)
```

Use methods to calculate the sums at the bottom too. Call them in the "Roll" button. Use the returned values to update the TextViews on the screen.

```
public int pairs (int n1, int n2, int n3, int n4)
public int sum (int n1, int n2, int n3, int n4)
public String groupOf3 (int n1, int n2, int n3, int n4)
public String groupOf4 (int n1, int n2, int n3, int n4)
public String straight (int n1, int n2, int n3, int n4)
```

Here is the code to make a Straight run. You will need to call it in roll.

```
public String straight(int n1, int n2, int n3, int n4){
    int a[]={n1, n2, n3, n4};
    selectionSort(a);
    String ans = "yes";
    for(int i=0; i<a.length-1; i++){
        if(a[i]!=(a[i+1]-1))
                ans="no";
    }
    return ans;
}
public void selectionSort(int a[]) {
    for (int left = a.length - 1; left > 0; left--) {
        int max = 0;
        for (int i = 1; i <= left; i++) {
            if (a[max] < a[i])
                                    max = i;
        }
        int temp = a[max];
        a[max] = a[left];
        a[left] = temp;
    }
}
```

