

CS 112

A MWF 1:10 - 2:00 pm

B MWF 11:00 - 11:50 am

$\text{rand.nextInt}(10)$	$0..9$
$\text{rand.nextInt}(21) - 10$ <i>0...20</i>	$-10..10$
$\text{rand.nextDouble}()$	$[0..1)$
$10 * \text{rand.nextDouble}()$	<del><math>[-5..5)</math></del> $[0..10)$
$10 * \text{rand.nextDouble}() - 5$	$[-5..5)$

char 'A' .. 'Z'

```
int n = rand.nextInt(26) // 0..25
// offset from 'A'
```

```
char c = (char)('A' + n)
```

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'A' .. 'Z', 'a' ... 'z'

```

char c = 'A';
int n = rand.nextInt(52);
if (n < 26) {
    c = (char)('A' + n);
}
else {
    c = (char)('a' + (n - 26));
}
}

int n = rand.nextInt(52);
char c = (char)('A' + n);
boolean isLower =
    rand.nextBoolean();
if (isLower) {
    c = (char)('a' + n);
}
else {
    c = (char)('A' + n);
}

```

# Simulation

- 1000 coin tosses
- count heads and tails
- print results

```
int heads = 0;
for (int i = 1; i <= 1000; i++) {
    int flip = rand.nextInt(2);

    heads += flip;
}
int tails = 1000 - heads;
```