```perl
use strict;
use warnings;

print "Hello world!\n";
```

```perl
use strict;
use warnings;

my $x = 5;
print "x = $x\n";

$x = "five";
print "x = $x\n";

$x = 5;
my $y = "eight";
my $z = $x + $y;
print "$x + $y = $z\n";
```

```perl
use strict;
use warnings;

my @n = (1,2,3,4,5);
print "@n\n";

print "$n[2]\n";

my $element = $n[2];
print "$element\n";

my $index = 4;
print "$n[$index]\n";

my $last_index = $#n;
print "$n[$last_index]\n";

my $no_elements = @n;
print "$no_elements\n";
```

```perl
use strict;
use warnings;

my @n = (1,2,3,4,5);
foreach (@n) {
  print "$_\n";
}

foreach my $element (@n) {
  print "$element\n";
}

for (my $i = 0; $i  < @n ; $i++) {
  print "$i: $n[$i]\n";
}
```

```perl
use strict;
use warnings;

my @n = (1,2,3,4,5);
foreach (@n) {
  if ($_ == 4) {
    print "The array contains a 4\n";
  }
}

@n = (1,2,3,4,5);
foreach (@n) {
  if ($_ == 4) {
    print "The array contains a 4\n";
    last;
  }
}
```

```perl
use strict;
use warnings;

my @a = (1,5,7,8,3,12,45,34,99);

for (my $i = 0; $i < @a-1; $i++) {

  my $index = $i;
  for (my $j = $i+1; $j < @a; $j++) {
    if ($a[$j] < $a[$index]) {
      $index = $j;
    }
  }

  print "$i $index: @a\n";

  ($a[$i],$a[$index]) = ($a[$index],$a[$i]);
}
```

```perl
use strict;
use warnings;

my ($a,$b,$c) = @ARGV;

my $root = $b**2-4*$a*$c;

if ($root < 0) {
  print "No solution!\n";
  exit;
}

my $x1 = (-$b + sqrt($root))/(2*$a);

my $x2 = (-$b - sqrt($root))/(2*$a);

if ($x1 == $x2) {
  print "Solution: $x1\n";
} else {
  print "Solutions: $x1 and $x2\n";
}
```

```perl
use strict;
use warnings;

my @list = @ARGV;

my @newlist;

foreach my $l (@list) {

   my $found = 0;
   foreach my $n (@newlist) {
       if ($l eq $n) {
         $found = 1;
          last;
       }
    }

    if (!$found) {
       push @newlist, $l;
    }
}

print "@newlist\n";
```

```perl
use strict;
use warnings;

my @n = @ARGV;

my @c;
foreach (@n) {
  push @c, 0;
}

my $no_comb = 0;

while (1) {

  print "@c\n";
  $no_comb++;

  for (my $i = $#n; $i >= 0; $i--) {
    if ($c[$i] == $n[$i]) {
      $c[$i] = 0;
    } else {
      $c[$i]++;
      last;
    }
  }

  # Back to 0,0,0, ...
  my $back = 1;
  foreach (@c) {
    if ($_ != 0) {
      $back = 0; last;
    }
  }
  last if $back;
}

print "No combinations: $no_comb\n";
```

```perl
use strict;
use warnings;

my @numbers;

# Opening file ...
open (N, "numbers.txt") || die "Couldn't open file: $!\n";
while (<N>) {
  chomp;

  my @n = split /\s/;
  push @numbers, @n;

  # Or even shorter:
  # push @numbers, split /\s/;
}

print "@numbers\n";

my $sum = 0;
foreach (@numbers) {
  $sum += $_;
}
my $avg = $sum/@numbers;

print "Average = $avg\n";
```