

Problem 1:

In this problem, your input is a **real number** x , which represents an angle in **degree**. You need to apply the following series expansion to compute the value of a series: $\sin(x)$. Use the first 100 items from the infinite series. Print 6 digits after the decimal point in your output. The expansion of the series is as follows (where x is expressed in **radian**):

$$\sin x = x - \frac{1}{6} x^3 + \frac{1}{120} x^5 - \frac{1}{5040} x^7 + \dots \text{ for } -\infty < x < \infty$$

See the following example (minor precision error would be acceptable):

Sample input	Corresponding outputs
0	0.000000
90	1.000000
30	0.500000
50	0.766044

Problem 2:

Given an **input integer** n , you need to draw the following shapes using stars (*) and dashes (-).

Sample input	Corresponding outputs
4	<pre> * *_* *_-* *----* *-----* *_-* *_* *</pre>
5	<pre> * *_* *_-* *-----* *-----* *_-* *_* *</pre>