

Ex – 2 (12 1.22)

1. Write a program that accepts three sides of a triangle and check whether the triangle is valid or not. The triangle is valid if the sum of two sides is greater than the largest of the three sides.
2. Write a program to receive value of an angle in degrees and check whether sum of squares of sin and cosine of this angle is equal to 1.
3. Write a program that receives weight as input and prints out the boxer's weight class. In boxing the weight class of a boxer is decided as per the following table.

Boxer Class	Weight in pounds
Fly weight	<115
Bantam weight	115 -121
Featherweight	122-153
Middleweight	154-189
Heavyweight	>=190

4. Write a program that accepts month and date of birth as input and prints the corresponding zodiac sign based on the following table:

Sun sign	From - to
Capricorn	Dec 22 – jan19
Auarius	Jan 20 – feb 17
Pisces	Feb 18 – Mar 19
Aries	Mar 20 – Apr 19
Taurus	April 20 – May 20
Gemini	May 21 – Jun 20
Cancer	Jun 21 – Jul 22
Leo	Jul 23 – Aug 22
Virgo	Aug 23 – Sep 22
Libra	Sep 23 – Oct 22
Scorpio	Oct 23 – Nov 21
Sagittarius	Nov 22 – Dec 21

5. Write a program to read ten numbers and count number of positive, negative and zero.
6. Evaluate the following series. Use do –while, for and while loop.
  - i)  $1+3+5+7+...+n$
  - ii)  $1+4+25+36+...+n$
  - iii)  $x+x^2/2! +x^3/3!+...+n$