**Ouput:**

1. ?-consult(‘file.pl’).

?- intersect([1,2,3,4,5,6],[1,3,5],V).

V = [1, 3, 5].

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2. good\_meal([milk,banana,apple,apple\_pie, naan, orange\_juice,beans,salad]).

true.

?- totalCalories([milk,banana,apple,apple\_pie, naan, orange\_juice,beans,salad],X).

X = 533.

?-good\_meal([milk,cookies]).

false.

?- vegetarian\_meal([apple,beans, cookie, coke],X).

X = 408 .

?-vegetarian\_meal([apple,lasagna, cookie, coke],X).

false.

?- vegetarian\_meal([A,B,C,D],X).

A = apple,

B = beans,

C = potato\_soup,

D = peas,

X = 403.

?-vegetarian\_meal([A,B,C,D,E,F,G],X).

A = apple,

B = beans,

C = apple\_pie,

D = banana,

E = salad,

F = carrot,

G = water,

X = 433.

?-non\_vegetarian\_meal([apple,lasagna, cookie, coke],X).

X = 533 .

?- non\_vegetarian\_meal([apple,beans, cookie, coke],X).

false.

?- non\_vegetarian\_meal([A,B,C],X).

A = apple,

B = beans,

C = hamburger,

X = 490.

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3. sqrt(2,X).

X = 1.4142135623746899.

?- sqrt(9,X).

X = 3.0 .

?- sqrt(10,X).

X = 3.162277660168379.

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4. queens(A,B,C,D,E).

A = 1,

B = 3,

C = 5,

D = 2,

E = 4 ;

A = 1,

B = 4,

C = 2,

D = 5,

E = 3 ;

A = 2,

B = 4,

C = 1,

D = 3,

E = 5 ;

A = 2,

B = 5,

C = 3,

D = 1,

E = 4 ;

A = 3,

B = 1,

C = 4,

D = 2,

E = 5 ;

A = 3,

B = 5,

C = 2,

D = 4,

E = 1 ;

A = 4,

B = 1,

C = 3,

D = 5,

E = 2 ;

A = 4,

B = 2,

C = 5,

D = 3,

E = 1 ;

A = 5,

B = 2,

C = 4,

D = 1,

E = 3 ;

A = 5,

B = 3,

C = 1,

D = 4,

E = 2 ;

false.