

Write a program to calculate Income Tax.

Given the gross income calculate the tax applicable

Rule 1 - For the gross income less than or equal to 4,00,000 tax rate will always be 0;

Rule 2 - For the gross income more than 4,00,000, tax rate will be applicable over slabs of gross income as follows

Row		Tax Rate	Taxable income	Tax	Description
A	0 to 1,50,000	0.0%	1,50,000	0	1,50,000*0%
B	1,50,001 to 3,00,000	2.5%	1,50,000	3,750	1,50,000*2.5%
C	3,00,001 to 8,00,000	10%	5,00,000	50,000	5,00,000*10%
D	8,00,001 to 1,00,00,000	25%	92,00,000	23,00,000	92,00,000*25%
E	1,00,00,001+	30%	Refer Example 3	Refer Example 3	

Example 1 For the gross income of 3,00,000, the Rule 1 is applicable and the tax will be 0

Example 2 For the gross income of 5,00,000, the **Rule 2** is applicable and the tax will be

As per **Row A**

0 to 1,50,000 tax rate = 0 tax amount = 0

As per **Row B**

For 1,50,001 to 3,00,000 tax rate = 2.5% tax amount = 3,750 (1,50,000 * 2.5%)

As per **Row C**

For 3,00,001 to 5,00,000 tax rate = 10% tax amount = 20,000 (2,00,000 * 10%)

Total tax : 3,750 + 20,000 = 23,750

Example 3 For the gross income of 2,00,00,000, the **Rule 2** is applicable and the tax will be

As per **Row A**

For 0 to 1,50,000 tax rate = 0 tax amount = 0

As per **Row B**

For 1,50,001 to 3,00,000 tax rate = 2.5% tax amount = 3,750 (1,50,000 * 2.5%)

As per **Row C**

For 3,00,001 to 8,00,000 tax rate = 10% tax amount = 50,000 (5,00,000 * 10%)

As per **Row D**

For 8,00,001 to 1,00,00,000 tax rate = 25% tax amount = 23,00,000 (92,00,000 * 25%)

As per **Row E**

1,00,00,001 to 2,00,00,000 tax rate = 30% tax amount = 30,00,000 (1,00,00,000 * 30%)

Total tax : 3,750 + 50,000 + 23,00,000 + 30,00,000 = 53,53,750

Addition problem for extra points

Lets say "*net income*" = "*gross income*" - "*tax amount*"

Given the net income calculate the gross income

Example 1 For the net income of 3,00,000, the gross income will be 3,00,000

Example 2 For the net income of 7,46,250 and 4,00,000, the gross income will be calculated as
As per tax slabs

Row	Gross Income slab	Tax rate	Tax Amount	Net income = Gross Income slab - Tax Amount	
A	0 to 1,50,000	0%	0	1,50,000	
B	1,50,001 to 3,00,000	2.5%	3750	1,46,250	
C	3,00,001 to 8,00,000	10%	50,000	4,50,000	

If you net income is 7,46,250

As per **Row A** a upto initial 1,50,000 of net income your gross income is 1,50,000

Uncalculated net income is 5,96,250 = 7,46,250 - 1,50,000

As per **Row B** for next 1,46,250 of net income your gross income is 1,50,000 = (3,00,000 - 1,50,000)

Uncalculated net income is 4,50,000 = 5,96,250 - 1,46,250

As per **Row C** for next 4,50,000 of net income your gross income is 5,00,000 = (8,00,000 - 3,00,000)

Total gross income is 8,00,000 = (1,50,000 + 1,50,000 + 5,00,000)

If you net income is 4,00,000

Rule 1 is applicable your Total gross income is 4,00,000

If you net income is 4,00,001

As per **Row A** a upto initial 1,50,000 of net income your gross income is 1,50,000

Uncalculated net income is 2,50,001 = 4,00,000 - 1,50,000

As per **Row B** for next 1,46,250 of net income your gross income is 1,50,000 = (3,00,000 - 1,50,000)

Uncalculated net income is 1,03,751 = 2,50,000 - 1,46,250

As per **Row C** for next 1,03,751 of net income the tax rate is 10%

$$1,03,750 = \text{Gross Income} * (1 - 10\%)$$

$$\text{Gross Income} = 1,03,751 / (1 - 10\%)$$

$$\text{Gross Income} = 1,03,751 / 0.9$$

$$\text{Gross Income} = 1,15,278$$

Total gross income is 4,15,278 = (1,50,000 + 1,50,000 + 1,15,278)

Point Perks

- Creating html interface will carry additional points
- Use of multiple inheritance will carry additional points
- Implementation of traits will carry additional points
- Use of late static binding will carry additional points
- Use of Autoloader in PHP will carry additional points