

The City School

North Nazimabad Boys Branch
Grade 9 Mathematics



Topic: Numeration & Solution to the Quadratic Equation

Mr. Mohsin Zaki

Q1) A man's salary is \$45000 per annum. Before income tax is charged, the following allowances are deducted from his gross salary:

Personal allowance	\$3000	Spouse allowance	\$1500
Child allowance	\$4500	Other allowance	\$6000

Calculate

- (a) his annual taxable income,
- (b) his annual tax payable if the rate of tax is 8% for the first \$10000 and 12% for the remainder of the taxable income,
- (c) the percentage of his salary that is paid in tax

Q2) A man deposited \$20000 in a bank that pays 3.2% per annum compound interest compounded annually. Calculate the amount that the man will receive at the end of 3 years.

Q3) Solve the following equations by factorization:

- (a) $x^2 + 2x - 25 = 0$
- (b) $x^2 - 26x + 133 = 0$
- (c) $4x^2 - 20x + 25 = 0$
- (d) $7x^2 + 58x - 45 = 0$
- (e) $6x^2 + 7x - 3 = 0$

Q4) The area of a rectangle is 92cm^2 . If the length is 4cm longer than its width , find the perimeter of the rectangle, giving your answer correct to nearest mm.

Q5) The sum of two numbers is 28 and the sum of their square is 400. Find the two numbers.