



# Trivia Quadratics

Q1 (3, 5)

Solving the following quadratic equation

1) Factorize

$$4x^2 - 13x - 12 = 0$$

2) Complete the square

$$3x^2 + 4x - 5 = 0$$

3) Quadratic Formula

$$2x^2 - 7x + 3 = 0$$

Q2 (4, 5)

If the solutions of  $3x^2 - 5x - 7 = 0$   
Are  $a$  and  $b$ , find the value of following  
without solving the equation

1)  $a+b$

2)  $ab$

3)  $a^3+b^3$

4)  $a-b$

Q3 (4, 5)

1) If quadratic equation

$2x^2 + 3tx + 19 = 0$  has two repeated real solutions, what the value of  $t$ .

2) If quadratic equation

$X^2 + kx + 5 = 0$  has no real solution, what the range of  $k$ .

Q4 (3, 6)

1) Sketch parabola of  
 $y = 3x^2 + 4x - 1$

2) If a parabola going through  $(4,2)$ ,  $(8,2)$   
and  $(1,5)$ , find the equation.

3) If a parabola passing point  $(1,5)$  has  
vertex  $(2, -4)$ , and the symmetry axis is  
parallel to x axis. Find the equation

Q5 (3, 5)

Solving the following quadratic equation

1) Factorize

$$4x^2 - 13x - 12 = 0$$

2) Complete the square

$$3x^2 + 4x - 5 = 0$$

3) Quadratic Formula

$$2x^2 - 7x + 3 = 0$$

Q6 ( 3, 8)

1) Find the intersection of parabola  $2x^2 + 3x - 1 = 0$  and line  $2x + 5y = 0$

2) Find the line equation which is tangent to  $3x^2 + 5x - 1 = 0$  at ( 1, 7)

3) Find the line equation which is tangent to  $3x^2 + 3x - 2 = 0$  with slope 9.

Q7(3, 8)

Solving the following quadratic inequaties.

1.

$$4x^2 - 13x - 12 > 0$$

2.

$$3x^2 + 4x - 5 < 0$$

3.

$$4x^2 - 6x - 1 < 3x^2 + 5x - 3$$