

Test 3

Friday 9 Oct. 2018

Maths 10

Second Degree Equations (3 methods)

Name: _____

1) Solve the following equations (without Δ) considering the solutions are integers

i) $3x^2 - 11x + 17 = x^2 + 11x - 3$

ii) $x^2 - 2x - 5 = 10$

iii) $x^2 + 5x + 100 = 6(5 - 2x)$

iv) $(x - 12)^2 - 64 = 0$

2) Solve the following equations by *completing the square* :

i) $2x^2 - 20x + 26 = 0$

ii) $2x^2 - 24x + 26 = 0$

iii) $x^2 - \frac{7}{2}x + 3 = 0$

iv) $\frac{1}{x-1} + \frac{1}{x+2} = 1$

3) How many solutions have the following equations

i) $2x^2 - 7(2x - 4) = 0$

ii) $2x^2 - 23x + 110 = 9(x - 2)$

iii) $2x^2 = 7(2x + 4)$

Bonus

Using the method of the discriminant Δ , solve again three of the equations of question (2).