Math 06, Chapter 8 Test
10:00 - 10:45

These ten questions are worth 5 points each. To get all 5 points it is very important that you show clearly all your working out and reasoning. Put a box around the answer.

Q1. Factor: $x^2 + 9x + 18$

Q2. Solve by factoring: $x^2 - 4x - 12 = 0$

Q3. Solve: $x^2 = 4$

Q4. Solve by completing the square: $x^2 - 6x = 1$

Q5. Find the discriminant of this equation and decide how many real roots it has:

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

Q6. Solve using the quadratic formula: $3x^2 - 10x + 3 = 0$

Q7. Find the x-intercepts and the y-intercept for: $f(x) = x^2 - 4x - 12$

Q8. Find the axis of symmetry of the graph of: $f(x) = -2x^2 + 8x + 1$

Q9. Find the coordinates of the vertex of: $f(x) = -2x^2 + 8x + 1$

Q10. Graph: $f(x) = x^2 + 4x - 1$