1a (10P)	1b (10P)	2a (10P)	2b (10P)	3a (15P)	3b (15P)	4 (15P)	5 (15P)	TOTAL

Math171 First Midterm Exam – A (30.10.2008)

Name:
Surname:
ID:
Section:

Show all your work clearly. Answers without justifications and calculations will get zero point. Calculators and mobile phones strictly prohibited.

1- a) Solve the equation $t^2 - 8t = -15$ by factoring

1- b) Find the domain of the function $f(x) = \dfrac{5x-7}{\sqrt{x+2}}$

2-a) Solve $4 < \left|\frac{2}{3}x + 5\right|$

2-b) If $f(x) = \frac{1}{x^2}, g(x) = x + 1$, find (fog)(x) and (gof)(x)

3-a) Test the equation $y = 9 - x^2$ for symmetry about the x-axis, y-axis and origin.

3-b) Sketch the line passes through (-2, 3) and has y-intercept –1. Determine the equation and express in general form.

4- Graph $y = f(x) = (2x-1)^2$. Give all intercepts and the vertex.

5- The demand function for a manufacturer's product is $p = f(q) = 200 - 2q$, where p is the price (in dollars) per unit when q units are demanded. Find the level of production that maximizes the manufacturer's total revenue, and determine this revenue.