

November 2, 2012

IŞIK UNIVERSITY, MATH 103 MIDTERM EXAM I

Exam Duration: 1.5 hour	Q1		Q2		Row No:
Last Name:	First Name:			Student ID:	

Q1. (15 pt) The lines $3x - 5y - 7 = 0$ and $ax - 3y + 2 = 0$ are parallel. Find a .

Q2. (15 pt) Using transformation techniques graph the function:

$$y = |x - 1| + 2$$



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Q3. (15 pt) Find x - and y - intercepts of the equation:

$$y^2 (3x^2 - 2) - 5x + 8 = 0$$

Q4. (20 pt) If $f(x) = 3x^2 + x + 10$ and $g(x) = \sqrt{4 + 5x}$, find a) $f \circ g$, b) $g \circ f$, c) $(g \circ g)(1)$.



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Exam Duration: 1.5 hour	Q5	Q6	Row No:
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Q5. (15 pt) Test the graph of the equation

$$x + 2 = y^2 + y^4$$

for the symmetry about the x - axis, y - axis and the origin.

Q6. (20 pt) The vertex of the parabola $y = ax^2 + 4x - 2$ is located at the point $(1, b)$.

Find a and b .

