

Math 102 Quiz 6 Make-up

STUDENT

due Monday March 12, 2012 before the final.

Instructions: Show your work, and box your final answer.

If you encounter an imaginary number, say so (don't try to finish the problem).

1. Factor as much as possible:

(a) $(r + 3)m - 2(r + 3)$

(b) $x^2 + x + 45$

2. Find the roots of:

(a) $y = x^2 + 9$

(b) $y = x^3 + 2x^2 - 15x$

3. Multiply and collect like terms:

(a) $(-2m + 5y)^2$

(b) $(r - s)(3r^2 + 5r^2s + s^2)$

4. Solve the following equations. Check your solutions.

(a) $-2v^2 + 4 = -3v^2 + 2v + 3$

(b) $m^2 + 3m = 28$

(c) $(v - 1)(v - 3)(v + 4) = 0$

5. Divide: $(r^3 + 3r^2 - 4r + 12) \div (r - 2)$.