

**BRONX COMMUNITY COLLEGE**  
of the City University of New York

**DEPARTMENT OF MATHEMATICS & COMPUTER SCIENCE**

**MTH 28. Review for test 1**

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1. Function  $f$  is given by  $f(x) = 7x - 8$ . Find

(a)  $f(3)$

(b)  $f(a + 5)$

(c)  $f(3t)$

2. Function  $f$  is given by  $f(x) = 3x^2 - 5x + 3$ . Find

(a)  $f(1)$

(b)  $f(3)$

(c)  $f(-2)$

3. Factor completely:

(a)  $3b^2 + 12b$

(b)  $12x^3y - 3y^3$

(c)  $9x^2y^3 - 3x^2y^5$

(d)  $25x^4 - 16y^2$

(e)  $15ax + 9xy - 10ay - 6y^2$

(f)  $x^2 - 3x - 10$

(g)  $2x^2 - x - 6$

(h)  $3x^2 - 2x + 5$

(i)  $4x^2 - 12xy + 9y^2$

(j)  $-3x^2 - xy + 10y^2$

(k)  $2x^4 - 2x^3 - 12x^2$

4. Solve:

(a)  $3x^2 = 27$

(b)  $6x^2 = 3x$

(c)  $x^2 - 8x + 16 = 0$

(d)  $x^2 - 8x - 20 = 0$

(e)  $2x^2 + x - 6 = 0$

(f)  $x^2 + 2x = 15$

(g)  $3x^4 = 3x^3 + 18x^2$

(h)  $30x^3 + 10x = 35x^2$