

## Practice Test #2

Math, 082

① Simplify:  $(2x^3y^4)(-4x^2y^3) =$

② Simplify:  $\frac{12a^3b^4c^2}{16a^5b^2c^5} =$

③ Simplify:  $(3a^3b)^3 =$

④ Simplify:  $(2.4 \times 10^3)(5.2 \times 10^6) =$

⑤ Simplify:  $(5x^2 + 8x - 5) - (2x^2 - 4x - 8) =$

⑥ Simplify:  $(2x - 5)(3x^2 - 2x + 5) =$

⑦ Factor completely:  $4x^3y^2 - 8x^2y + 12x^2y^2 - 10xy$

⑧ Factor:  $x^2 - 2x - 15 =$

⑨ Factor:  $9x^2 - 16 =$

⑩ Factor:  $3x^3 + 3x^2 - 60x =$

⑪ Factor:  $6x^2 - 4xy + 15x - 10y =$

Solve:

⑫  $x^2 - 5x - 14 = 0$

⑬ Solve:  $x^2 - 10x + 4 = 4x + 20$

⑭ Solve:  $25x^2 + 4x + 20 = 4x + 36$

⑮ Simplify:  $(3x - 4)^2 =$

⑯ Write 4,250,000 in scientific notation.

⑰ Evaluate  $2x^2 - 4x + 3$  when  $x = -4$

⑱ Factor:  $x^2 + 19x + 90 =$