## TOPICS FOR MATH PROFICIENCY EXAM

The following groups of exercises represent typical items that normally occur on the proficiency exam. This is not an exhaustive list. There may be additional topics from algebra I on the exam that are not illustrated below. It is recommended that a student consult an elementary algebra textbook to best prepare for this test.

1. Basic arithmetic operations including per cent, scientific notation, order of operations
a) What is $\frac{3}{4}+\frac{2}{5}$ ?
b) Find $35 \%$ of 140 .
c) Write 1, 235, 000 in scientific notation
d) Convert 2. $785 \times 10^{-2}$ to a standard number
2. Word problems that translate from English to algebra.
3. Linear functions written in slope intercept form.
4. Solving and factoring quadratic expressions.
a) Solve $x^{2}-3 x-10=0$
b) Find $(3 x+4)(2 x-1)$
c) Factor $4 x^{3}-8 x^{2}-12 x$
5. Basic algebra involving exponents and functions
a) $2 x^{2} \cdot 4 x^{5}$
b) Given: $f(x)=x^{2}-2 x+7$; find $f(-3)$
