

The following problems represent the absolute minimum knowledge necessary to have a chance of successful completion of **Math 245 (College Algebra)**. If you are unable to answer these problems, you are strongly advised to take Math 125 (Intermediate Algebra) or Math 134 (Accelerated Elem & Int Alg).

1. Factor:  $x^2 + x - 12$

2. Add:  $\frac{x}{(x+2)(x+1)} + \frac{2x}{(2x-3)(x+1)}$

3. Solve:  $\frac{x+1}{4} + \frac{x-2}{6} = 2$

4. Solve:  $9x^2 - 16 = 0$

5. Solve for  $x$ :  $xy - 5x = 2$

6. Rationalize the denominator:  $\frac{6}{1+\sqrt{5}}$

7. Graph  $f(x) = -3x + 2$