

**The following problems represent the pre-knowledge necessary to be successful in mastering the content of Math 238 (Business Calculus).**

1. Find the slope-intercept equation of the line that has a slope of  $-5$  and goes through the point  $(-1, 4)$

2. Solve the equation  $x^2 - 6x - 27 = 0$

3. Subtract the rational expressions  $\frac{3}{x+4} - \frac{1}{2x(x+4)}$

4. Simplify the expression  $\frac{x^{-5}y^4}{x^{-7}y^{-8}}$  using only positive exponents

5. Rewrite the expression  $\sqrt[5]{x}$  using rational exponents

6. Solve the equation  $5^{-2t} = 0.42$

7. Let  $f(x) = \frac{x+4}{x-5}$ . For what values of  $x$  is  $f(x) = 0$  and for what values of  $x$  is  $f(x)$  undefined?

**The material above represents concepts covered in Math 125 (Intermediate Algebra) or Math 134 (Accelerated Elementary & Intermediate Algebra).**