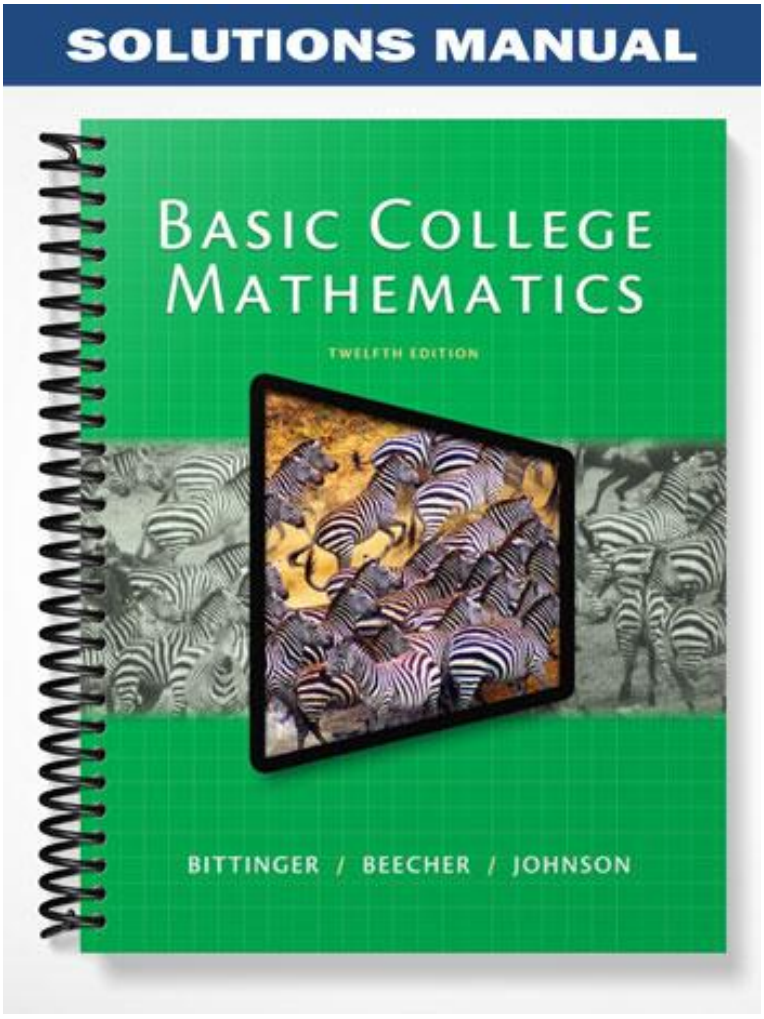SOLUTIONS MANUAL