

$$\textcircled{1} \frac{5 \text{ GAL}}{\text{FT}^2 \text{ DAY}} \frac{1 \text{ FT}^3}{7.48 \text{ GAL}} \frac{1 \text{ DAY}}{86400 \text{ SEC}} = 7.73 \times 10^{-6} \frac{\text{FT}^3}{\text{FT}^2 \text{ SEC}}$$

$$\textcircled{2} 2.67 \frac{\text{g}}{\text{cm}^3} \frac{2.205 \text{ lb}}{\text{kg}} \frac{1 \text{ kg}}{1000 \text{ g}} \left(\frac{2.54 \text{ cm}}{\text{in}} \right)^3 \left(\frac{12 \text{ in}}{\text{ft}} \right)^3 = 166.7 \frac{\text{lb}}{\text{ft}^3}$$

$$\textcircled{3} 2 \text{ mi} \frac{1.609 \text{ km}}{\text{mi}} = 3.22 \text{ km}$$

$$\textcircled{4} 5 \text{ acres} \frac{1 \text{ hectare}}{2.471 \text{ acres}} = 2.023 \text{ hectares}$$

$$\textcircled{5} 62.4 \frac{\text{lb}}{\text{ft}^3} \frac{453.6 \text{ g}}{\text{lb}} \left(\frac{1 \text{ ft}}{12 \text{ in}} \right)^3 \left(\frac{1 \text{ in}}{2.54 \text{ cm}} \right)^3 = 1 \frac{\text{g}}{\text{cm}^3}$$

$$\textcircled{6} 62.4 \frac{\text{lb}}{\text{ft}^2} \frac{1 \text{ kg}}{2.205 \text{ lb}} \left(\frac{1 \text{ ft}}{0.3048 \text{ m}} \right)^2 \frac{9.8 \text{ Pascals}}{\left(\frac{1 \text{ kg}}{\text{m}^2} \right)} = 2985.2 \text{ Pa}$$

$$\textcircled{7} 50^\circ \text{ F} \quad \text{C} = (\text{F} - 32) / 1.8 = 10^\circ \text{ C}$$

$$\textcircled{8} 50 \text{ GAL} \frac{1000 \text{ people}}{\text{person day}} \frac{365 \text{ day}}{\text{yr}} \frac{1 \text{ ft}^3}{7.48 \text{ GAL}} \frac{1 \text{ AC}}{43560 \text{ ft}^2} = 56 \text{ AFY}$$

$$\textcircled{9} 90 \text{ degrees} \frac{1 \text{ radian}}{57.3^\circ} = 1.57 \text{ radians}$$

$$\textcircled{10} 32.2 \frac{\text{ft}}{\text{sec}^2} \frac{12 \text{ in}}{\text{ft}} \frac{2.54 \text{ cm}}{\text{in}} = 981.5 \frac{\text{cm}}{\text{sec}^2}$$