1. Find the equation of the line through the two points $(2, 42)$ and $(10, 6)$

   $m = \frac{42-6}{2-10} = -4.5$

   Answer: $y - 42 = -4.5(x - 2)$ or $y = -4.5x + 51$

2. Find the profit function for the firm with a cost function of $C(x) = 8x + 72$ and revenue function $R(x) = 20x$.

   Answer: $P = 20x - (8x + 72) = 12x - 72$

3. Find the break even point for the firm with a cost function of $C(x) = 8x + 72$ and revenue function $R(x) = 20x$.

   $20x = 8x + 72$
   $12x = 72$
   $x = 6$

   so the break even point os $(6, 120)$