The thick indifference curves are for type \( b \) and the thin ones for type \( a \).

\( N = (24,000, 36,000) \)

\[
\begin{array}{ccc}
\text{contract} & \text{premium} & \text{deductible} \\
A & h_A = 200 & D_A = 1,200 \\
B & h_B = 400 & D_B = 1,000 \\
C & h_C = 600 & D_C = 0 \\
D & h_D = 300 & D_D = 600 \\
\end{array}
\]

(c) Only the \( b \) types would buy. Thus expected profits are 
\[ 1000 \left[ h_{C} - p_{b} \cdot (x - D_{C}) \right] = 20000 \]

(d) Only the \( b \) types would buy and they would all choose contract \( C \). Thus expected profits are 200,000 as in case (c).

(e) Type \( a \) would choose contract \( A \) and type \( b \) would choose contract \( C \). Thus expected profits are
\[ 1000 \left[ h_{A} - p_{a} \cdot (x - D_{A}) \right] + 1000 \left[ h_{C} - p_{b} \cdot (x - D_{C}) \right] = 220000 \]

(f) Everybody would choose contract \( D \). Thus expected profits are
\[ 1000 \left[ h_{D} - p_{a} \cdot (x - D_{D}) \right] + 1000 \left[ h_{D} - p_{b} \cdot (x - D_{D}) \right] = 30000 \]

(g) The premium, call it \( h_a \), must be such that \( h = p_a \cdot x \). Thus \( h_a = 200 \).

(h) \[ 1000 \left( h_{a} - p_{a} \cdot x \right) + 1000 \left( h_{a} - p_{b} \cdot x \right) = -200000 . \]