$\bar{V}_2 = \frac{1}{4}(2+3.5+4+2) = 2.875$

$P_{2,4} = 2.875 + K \sum_{i=1,3,4,5} \omega(2,i)(V_{i,4} - \bar{V}_i)$ let $K=1 \Rightarrow$

$P_{2,4} = 2.875 + \sum_{i=1,3,4,5} sim(2,i)(V_{i,4} - \bar{V}_i)$

$sim(U_2, U_1) = cosine(U_2, U_1) = cosine((2, 3.5, 2), (3.5, 2, 5))$

$= \frac{2 \cdot 3.5 + 3.5 \cdot 2 + 2 \cdot 5}{\sqrt{2^2+3.5^2+2^2} \cdot \sqrt{3.5^2+2^2+5^2}} = \frac{24}{\sqrt{20.25} \cdot \sqrt{41.25}} = 0.8304$

$sim(U_2, U_3) = cosine(U_2, U_1) = cosine((2, 3.5, 4, 2), (5, 1, 1, 5))$

$= \frac{2 \cdot 5 + 3.5 \cdot 1 + 4 \cdot 1 + 2 \cdot 5}{\sqrt{2^2+3.5^2+4^2+2^2} \cdot \sqrt{5^2+1^2+1^2+5^2}} = \frac{27.5}{\sqrt{36.25} \cdot \sqrt{52}} = 0.6334$

$sim(U_2, U_4) = cosine(U_2, U_4) = cosine((2, 3.5, 4, 2), (3, 4, 4.5, 3))$

$= \frac{2 \cdot 3 + 3.5 \cdot 4 + 4 \cdot 4.5 + 2 \cdot 3}{\sqrt{2^2+3.5^2+4^2+2^2} \cdot \sqrt{3^2+4^2+4.5^2+3^2}} = \frac{44}{\sqrt{36.25} \cdot \sqrt{54.25}} = 0.9922$

$\bar{V}_1 = \frac{1}{4}(3.5+2+4.5+5) = 3.75 \quad \bar{V}_3 = \frac{1}{5}(5+1+1+3+5) = 3$

$\bar{V}_4 = \frac{1}{4}(3+4+4.5+3) = 3.625$

$P(U_2, I_4) = 2.875 + 0.8304(4.5-3.75) + 0.6334(3-3) +$

$\underbrace{0.9922(\text{no rating} - 3.625)}_{=0}$

$= 2.875 + 0.6228 + 0 = 3.4978 \approx 3.5$