

1.

201:(16, 148) (8, 162) (8, 177) (4, 183) (2, 192) (1, 197) (1, 200)
202:(16, 148) (8, 162) (8, 177) (4, 183) (2, 192) (2, 200) (1, 202)
203:(16, 148) (8, 162) (8, 177) (4, 183) (2, 192) (2, 200) (1, 202)
204:(16, 148) (8, 162) (8, 177) (4, 183) (2, 192) (2, 200) (1, 202)(1,204)
205:(16, 148) (8, 162) (8, 177) (4, 183) (2, 192) (2, 200) (1, 202)(1,204)
206:(16, 148) (8, 162) (8, 177) (4, 183) (4, 200) (2,204)(1,206)
207:(16, 148) (8, 162) (8, 177) (4, 183) (4, 200) (2,204)(1,206)
208: (8, 162) (8, 177) (4, 183) (4, 200) (2,204)(1,206)(1,208)
209:(8, 162) (8, 177) (4, 183) (4, 200) (2,204)(1,206)(1,208)
210:(8, 162) (8, 177) (4, 183) (4, 200) (2,204)(2,208)(1,210)

2.

(1)

Cosine sim(u1,u2)
= $u1 \cdot u2 = 2 \cdot 3 - 1 \cdot 3$
 $/ |u1| \cdot |u2| = \sqrt{3^2 + (-1)^2} \cdot \sqrt{2^2 + (-1)^2 + 3^2}$
= $3 / (\sqrt{10} \cdot \sqrt{14})$
= 0.2535
Cosine sim(u1,u3)
= $u1 \cdot u3 = 3 \cdot 3 - 1 \cdot 1$
 $/ |u1| \cdot |u2| = \sqrt{3^2 + (-1)^2} \cdot \sqrt{3^2 + (3)^2 + 1^2}$
= $8 / (\sqrt{10} \cdot \sqrt{19})$
= 0.5804

0.5804 > 0.2535
u3 has more similar taste with u1
(2)

$R(u1, m2)$
= $\{s(u1, u2) \cdot R(u2, m2) + s(u1, u3) \cdot R(u3, m2)\} / s(u1, u2) + s(u1, u3)$
= $0.2535 \cdot -1 + 0 / (0.2535 + 0.5804)$
= -0.308
 $R(u1, m3)$
= $\{s(u1, u2) \cdot R(u2, m3) + s(u1, u3) \cdot R(u3, m3)\} / s(u1, u2) + s(u1, u3)$
= $0.5804 \cdot 3 / (0.2535 + 0.5804)$
= 2.113

$R(u1, m2) < R(u1, m3)$

So I would like to recommend m3.