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1) R_1: $2\times0.2/3 + 2\times0.3/5 + 2\times0.5/2 = 0.753h$

R_2: $1.8\times0.4/3 + 1.8\times0.2/5 + 1.8\times0.4/2 = 0.672h$

R_3: $3.1\times0.5/3 + 3.1\times0.4/5 + 3.1\times0.1/2 = 0.92h$

So pick Route 2

2) $R_{11} = R_1 + 0.3\times0.75 = 0.978h$

$R_{22} = 0.672 + 0.6\times1 = 1.272h$

$R_{33} = R_3 = 0.92h$

So Pick Route 3

3) Yes, it is helpful

So if the satellite finds the Route 3 is smooth,

$T = 3.1/5 = 0.62h$.

$\min(R_{11}, R_{22}) - T = 0.358h$.

So 0.358h is the time we want to wait for the information

4) It doesn't solve it correctly, the logic is correct but the calculation is wrong.