Exercise I – computing frequency values

In order to solve these exercises you need to apply the rules of the CORAS calculus.

1)

Figure 1

a) What can we say about the frequencies of the threat scenarios in Figure 1 under the assumption that that diagram in Figure 1 is complete?
b) What can we say about the frequencies of the threat scenarios in Figure 1 if we do not know whether the diagram in Figure 1 is complete or not?

2)

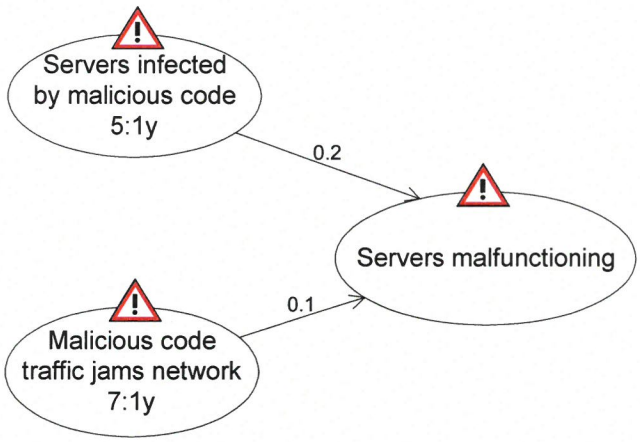

Figure 2

a) Assume the two threat scenarios to the left in Figure 2 are separate. What is the frequency of the threat scenario to the right in Figure 2?
b) Assume we assign the likelihood 15:1y to the threat scenario `Servers malfunctioning'. Is that consistent with the rest of the diagram?
c) Assume we assign the likelihood 9:1y to the threat scenario `Servers malfunctioning'. Is that consistent with the rest of the diagram?

Exercise II – computing frequency intervals

In many practical situations, it is difficult to find exact likelihood values for threat scenarios and unwanted incidents. In such cases it can be useful to operate with intervals. In Table 1 we have defined five likelihood values that each corresponds to an interval of frequencies. You shall use the likelihood values from Table 1 in the following exercises.

Likelihood value	Interval
often	*>10:1y*
sometimes	*<1:1y,10:1y]*
seldom	*<1:100y,1:1y]*
rarely	*[0:100y,1:100y]*

Table 1: Likelihood intervals

1)

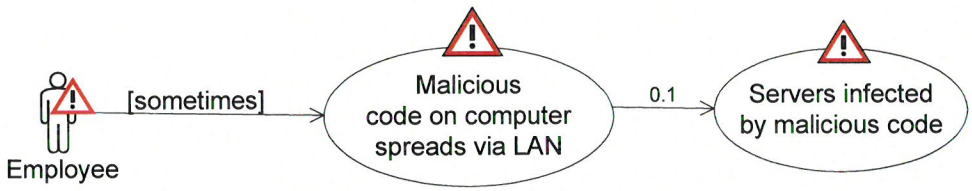

Figure 3

a) What is the correct frequency for the threat scenario to the left in Figure 3 (i.e., should it be Rarely, Seldom, Sometimes or Often)?
b) What is the correct frequency of the threat scenario to the right in Figure 3?

2)

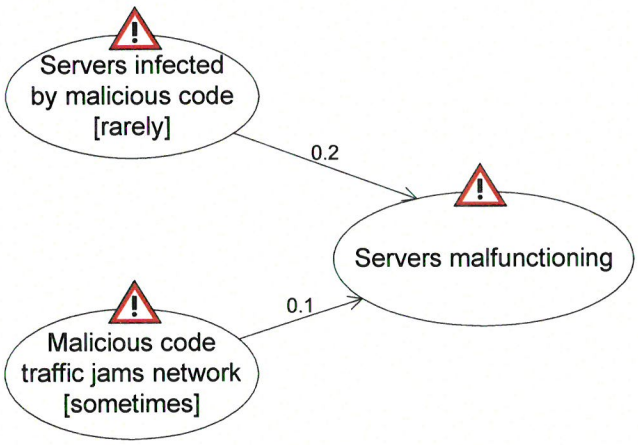

Figure 4

a) Assume the two threat scenarios to the left in Figure 4 are separate. What is the frequency of the threat scenario to the right in Figure 4?
b) Assume we assign the frequency `Rarely' to the threat scenario `Servers malfunctioning'. Is that consistent with the rest of the diagram?