

# The Decision Matrix Exercises

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## 2.1

	RIGHT NUMBER (1 / 38)	WRONG NUMBER (37 / 38)
bet	35x	-x
no bet	0	0

## 2.2

	GOD EXISTS	GOD DOESN'T EXISTS
We believe God Exist	gain eternity and infinity	gain nothing and lose nothing
We don't believe God exist	gain nothing	gain nothing and lose nothing

## 2.3

Even though the probability is extremely low, the probability of which god does in fact exist  $> 0$ .

## 2.4

Think in a different way :

- a and b are two single OR bits that can have only two values : 0 and 1
- $a = 0 \Rightarrow$  not getting stomach infection
- $a' = 1 \Rightarrow$  getting stomach infection
- $b = 0 \Rightarrow$  it is not too cold in Japan
- $b' = 1 \Rightarrow$  it is too cold in Japan
- two bits  $\Rightarrow$  4 states ,  $s_1, s_2, s_3, s_4$ 
  - ab, ab', a'b, a'b'

2.6

	S1	S2
a1	p	q
a2	r	s
a3	t	u