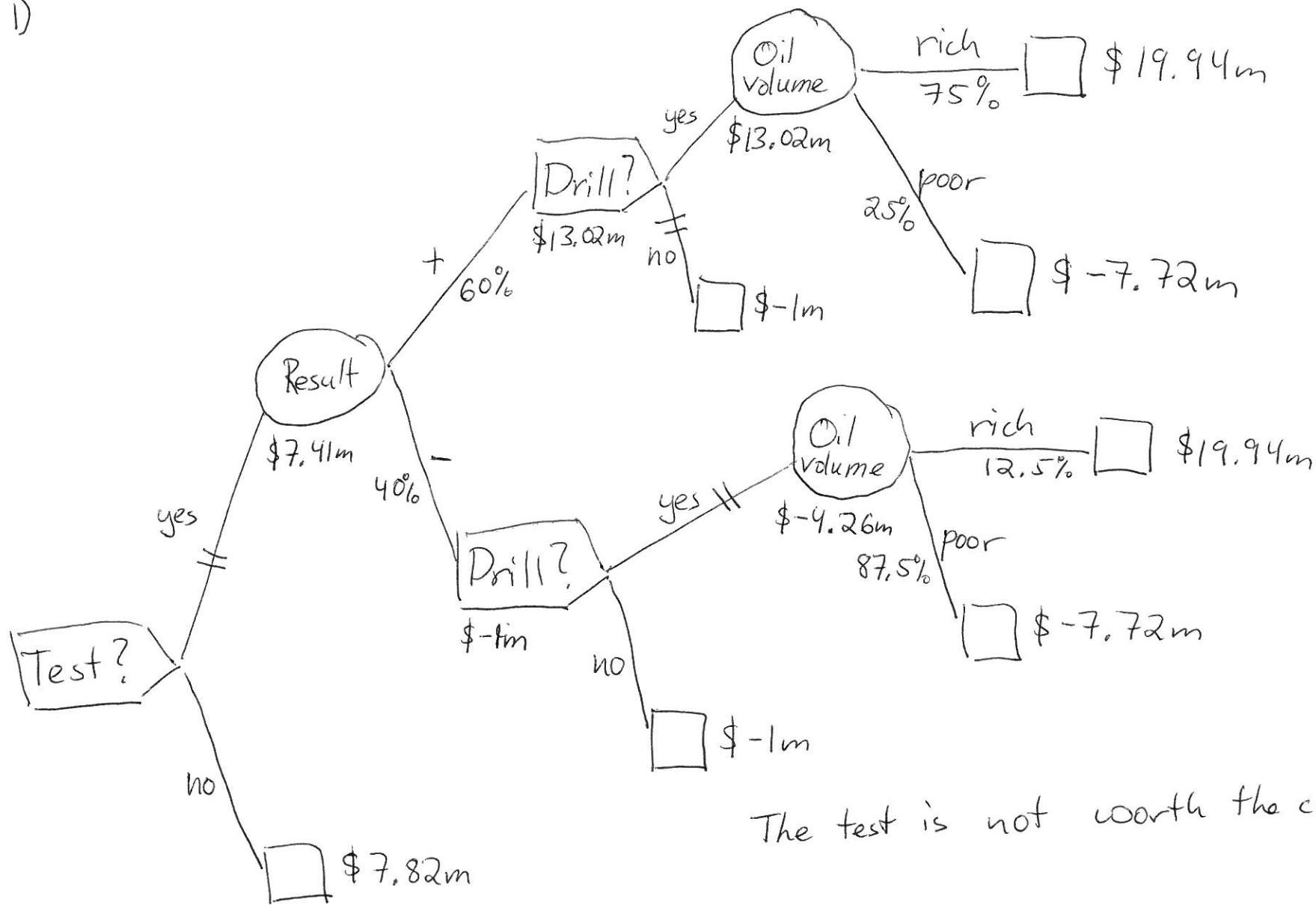


1)



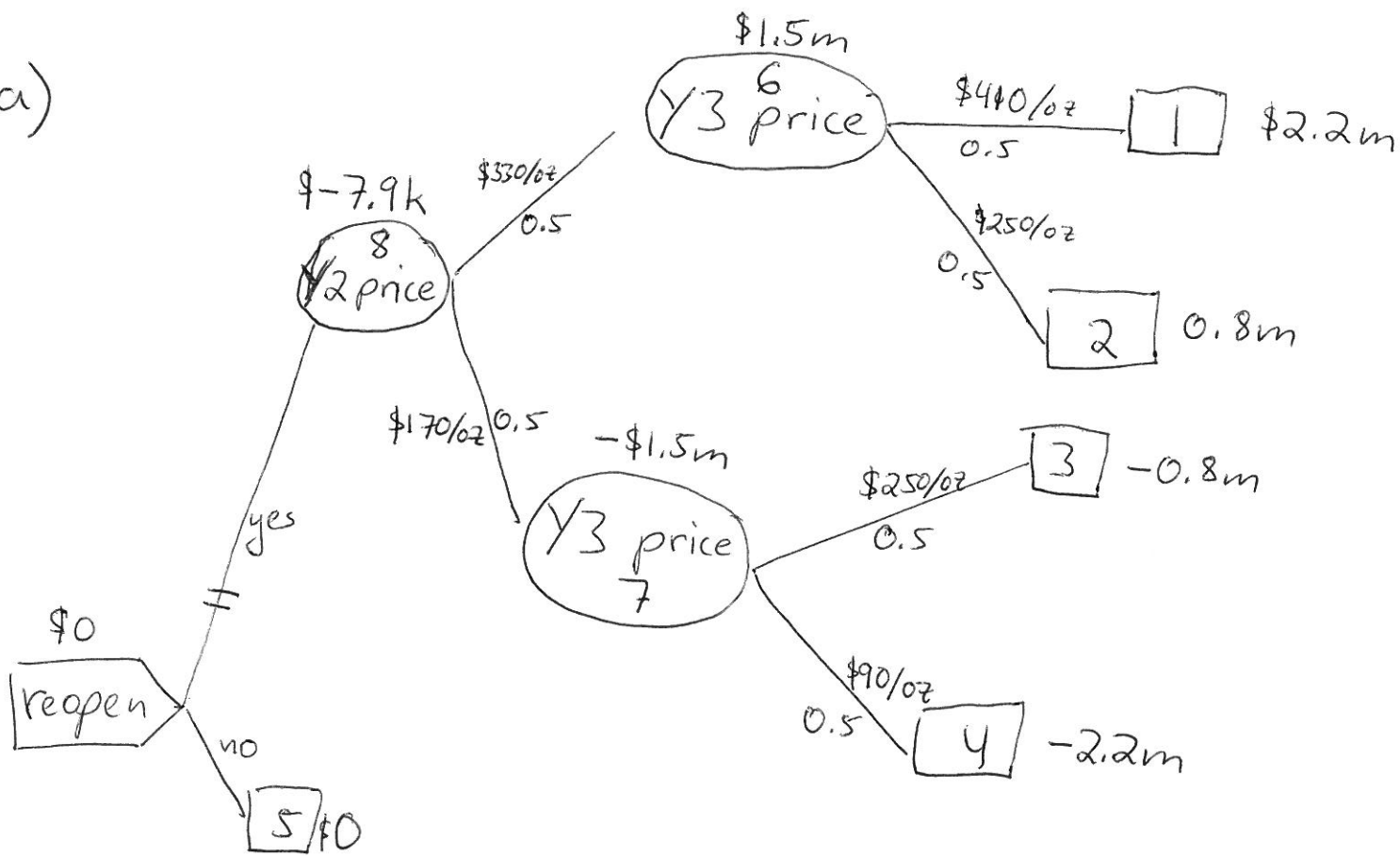
The test is not worth the cost.

$$P(+|rich) = 90\%, P(+|poor) = 30\%, P(+) = 60\%$$

$$P(-|rich) = 10\%, P(-|poor) = 70\%, P(-) = 40\%$$

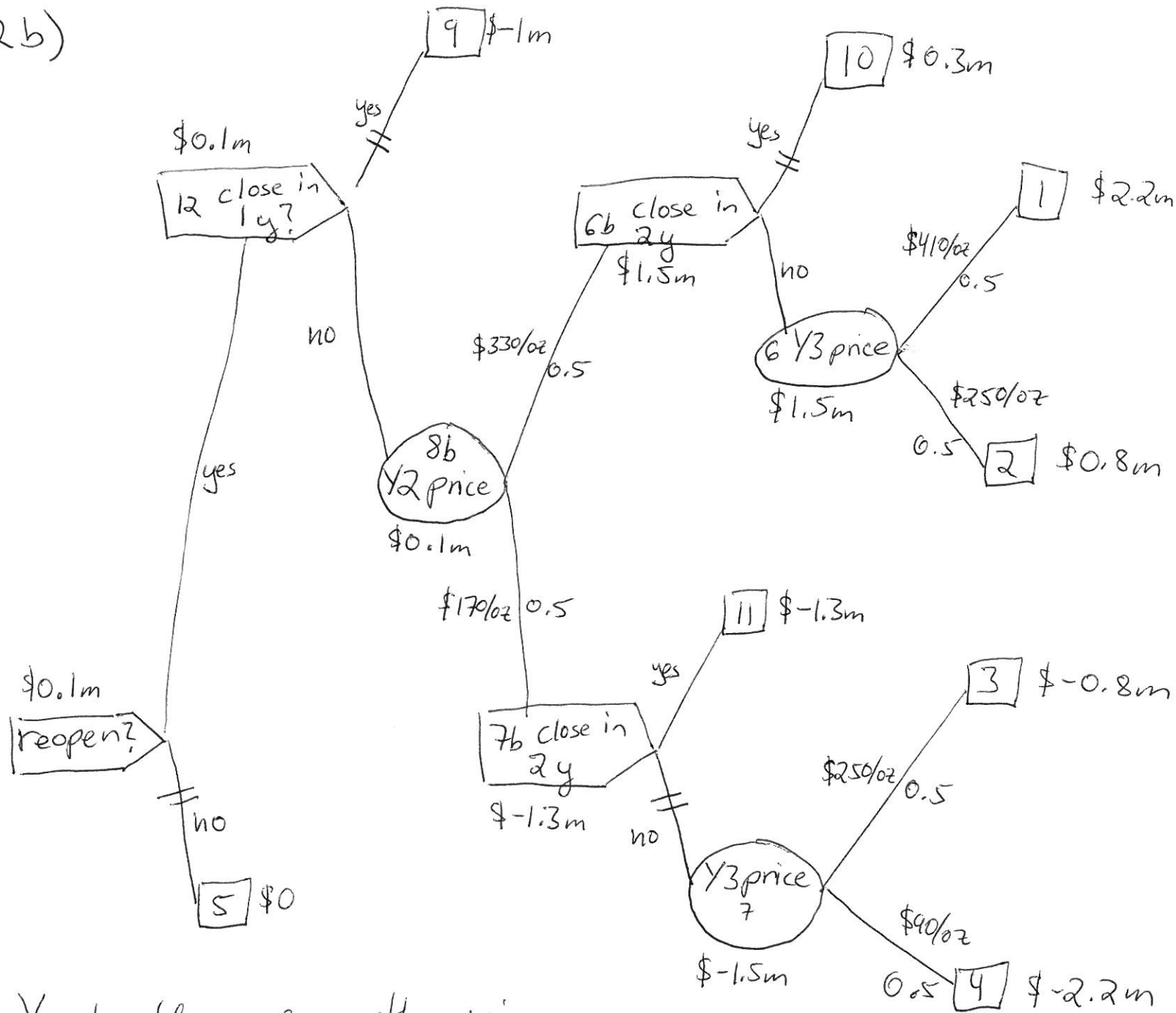
$$P(rich|+) = \frac{0.9 \cdot 0.5}{0.6} = 0.75, P(poor|-) = \frac{0.7 \cdot 0.5}{0.4} = 87.5\%$$

2a)



You should not open the mine.

2b)



You should open the mine.

You should close it in year 2 if the silver price goes down in year 2.