

specification $\Phi \equiv \mathbb{P}_{<0.1} [\mathbf{F} \text{ failure}] \wedge \mathbb{E}_{\min}^{\text{cost}} [\mathbf{F} \text{ finished}]$

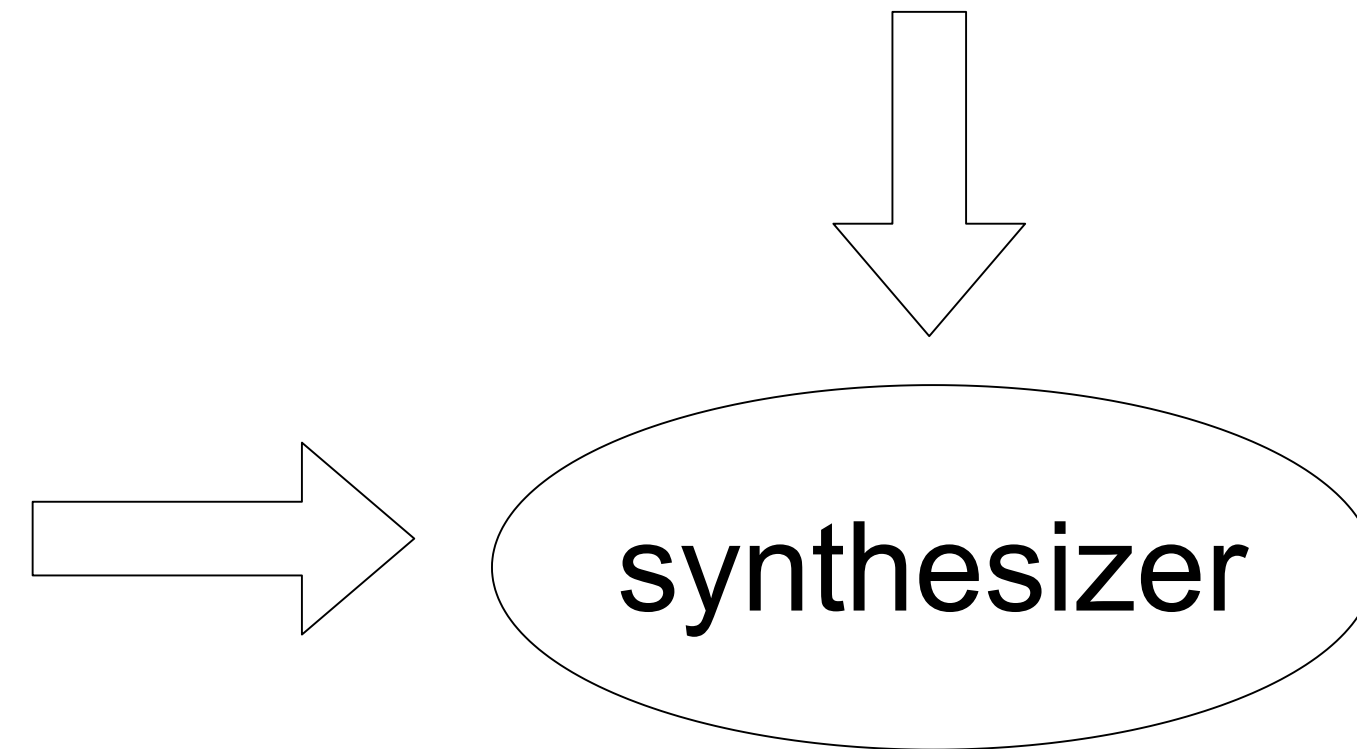
```
...  
while( (rand() % 3) < ?1 ) {  
    a = ?2 + 1;  
}  
...
```

program sketch \mathcal{P}

→

```
...  
...  
while( (rand() % 3) < 1 ) {  
    a = a + 1;  
}  
...  
...  
while( (rand() % 3) < 2 ) {  
    ...  
}  
...  
while( (rand() % 3) < 3 ) {  
    ...  
}
```

family $\overline{\mathcal{R}}$ of realizations



```
...  
while( (rand() % 3) < 2 ) {  
    a = a + 1;  
}  
...  
✓
```

a correct program $\mathcal{P}[r] \models \Phi$