

Task 1

Let's  $\text{Friend}(X, Y) = \text{Fr}(X, Y)$ ,  $\text{parent}(X, Y) = p(X, Y)$

(a)

? -  $\text{Fr}(\text{alisa}, Y), \text{Fr}(Y, Z)$ .

$y = \text{bob}$

$y = \text{denise}$

? -  $\text{Fr}(\text{alisa}, \text{bob}), \text{Fr}(\text{bob}, Z)$ .

? -  $\text{Fr}(\text{alisa}, \text{denise}), \text{Fr}(\text{denise}, Z)$ .

? -  $\text{Fr}(\text{bob}, Z)$ .

?  $\text{Fr}(\text{denise}, Z)$ .

$z = \text{chloe}$

$z = \text{edward}$

$z = \text{edward}$

?  $\text{Fr}(\text{bob}, \text{chloe})$

?  $\text{Fr}(\text{bob}, \text{edward})$

? -  $\text{Fr}(\text{denise}, \text{edward})$

$y = \text{bob}$

$y = \text{bob}$

$y = \text{denise}$

$z = \text{chloe}$

$z = \text{edward}$

$z = \text{edward}$

(b)

? -  $\text{Fr}(X, Y)$

? -  $\text{Fr}(\text{alisa}, \text{bob})$  ? -  $\text{Fr}(\text{alisa}, \text{denise})$  ? -  $\text{Fr}(\text{bob}, \text{chloe})$  ? -  $\text{Fr}(\text{chloe}, \text{denise})$  ? -  $\text{Fr}(\text{denise}, \text{edward})$

$x = \text{alisa}$

$x = \text{alisa}$

$x = \text{bob}$

$x = \text{chloe}$

$x = \text{denise}$

$y = \text{bob}$

$y = \text{denise}$

$y = \text{chloe}$

$y = \text{denise}$

$y = \text{edward}$

(c)  
jacqueline = ja  
marjorie = mar

? -  $p(\text{jacqueline}, Y), p(Y, \text{ling})$

$Y = \text{marjorie}$

? -  $p(\text{ja}, \text{mar}), p(\text{mar}, \text{ling})$

? -  $p(\text{mar}, \text{ling})$

False

$Y = \text{petty}$

? -  $p(\text{ja}, \text{petty}), p(\text{petty}, \text{ling})$

? -  $p(\text{petty}, \text{ling})$

False

$Y = \text{selma}$

? -  $p(\text{je}, \text{selma}), p(\text{selma}, \text{ling})$

? -  $p(\text{selma}, \text{ling})$

$Y = \text{selma}$