

2. a)

$$\text{prime}(n) = \forall n \forall m \text{ gth}(n, m) \wedge \neg \text{div}(n, m)$$

$$\text{Pred} = \{ \text{div}, \text{gth}, \text{prime} \}$$

$$\text{constr} = \{ \mathbb{N} \}$$

$$\text{var} = \{ n, m \}$$

b)

$$\text{ged}(a, b) = \forall a \forall b \forall d \forall x \text{ div}(a, d) \wedge \text{div}(b, d) \wedge \neg [\text{gth}(x, d) \wedge \text{div}(a, x) \wedge \text{div}(b, x)]$$

$$\text{Pred} = \{ \text{div}, \text{gth}, \text{ged} \}$$

$$\text{constr} = \{ \mathbb{Z} \}$$

$$\text{var} = \{ a, b, d, x \}$$