1] $(\exists x \in N)(x^3 = 27)$

b) $(\exists x \in N)(x > 1,000,000)$

c) $(\forall (n \in N \wedge n > 1))(\neg (n \text{ is prime}))$

→ This is not existance

2] using existance assertion

$$[\exists(n \in N \wedge n > 1)][(\neg (n \text{ is prime})]$$

2] $(\forall x \in N)(x^3 \neq 28)$

(b) $[\forall(n \in N)]$

$$[\forall (n \in N)](0 < 1)$$

(c) $[\forall(n \in N \wedge n > 1)](n \text{ is prime})$

3] $(\forall p_1)[(\exists p_2)(p_1 \text{ loves}(p_2))]$

(b) $(\forall p)[\text{tall}(p) \vee \text{short}(p)]$

(c) $(\forall x \in R)(x \in Q)$

(d) $(\exists x)(x \in I)$

(e) $(\exists c_f)(\text{badly made}(c_f))$

(c) $(\forall p)[\text{tall}(p) \vee \text{short}(p)]$

(d) $(\forall p)(\neg \text{honge}(p))$

(e) $(\text{John comes}) \Rightarrow [(\forall w)(w \text{ leaves})]$

f) $(\forall m)(m \text{ comes}) \Rightarrow [(\forall w)(w \text{ leaves})]$

4] (a) $(\forall a \in R)(\exists x \in R)(x^2 + a = 0)$

(b) $(\forall a \in R \wedge a < 0)(\exists x \in R)(x^2 + a = 0)$

(c) $(\forall x \in R)(x \in Q)$

(d) $(\exists x)(x \in I)$

(e) $(\exists x \in I)(\forall y \in I)[(y \neq x) \wedge (x > y)]$

5]

a.) $(\forall x \in C)(D(x) \Rightarrow M(x))$

(b) $(\forall x \in C)(\neg D(x) \Rightarrow M(x))$

(c) $(\forall x \in C)(M(x) \Rightarrow D(x))$

(d) $\exists x \in C \wedge D(x)$

$(\exists (x \in D(c)))(\neg M(x))$

(e) $(\exists x \in (\neg D(c)))(M(x))$

6]

$(\forall r_1 \in R)(\forall r_2 \in R)(\exists Q(x))[(r_1 \neq r_2) \wedge r_1 < Q_x]$

7] $(\exists T)(\forall P)(F(T,P))$

$\vee$

$(\forall T)(\exists P)(F(T,P))$

$\vee$

7 $[(\forall T)(\forall P)(F(T,P))]$

8] $(\exists x)(\forall t)[A(x,t)]$

9] Every six seconds there is a driver involved in accid

$(\forall t)(\exists x)(A(x,t))$