

1

1.1

While i and ii are statements, iii isn't a statement,
because we haven't received any information about x 's value.

1.2

$i)$

Statement:

$$\forall n \in \mathbb{F} \quad \exists m \in \mathbb{F} \mid n = m + m$$

Negated Statement:

$$\exists n \in \mathbb{F} \quad \forall m \in \mathbb{F} \mid n \neq m + m$$

$ii)$

Statement:

$$\forall m, n \in \mathbb{F} \quad n = m + m \rightarrow -n = -m - m$$

Negated Statement:

$$\exists m, n \in \mathbb{F} \quad n = m + m \wedge -n \neq -m - m$$

1.3

$i)$

Statement:

$$\forall n \in \mathbb{F} \quad \exists m \in \mathbb{F} \mid n = m + m$$

Negated Statement:

$$\exists n \in \mathbb{F} \quad \forall m \in \mathbb{F} \mid n \neq m + m$$