1. $\exists \; y \in \mathbb{Z}, \ni \dfrac{y}{2} \in \mathbb{Z}$

There exists a y element of the integers, such that y/2 is an integer.
Let y = 2, then 2/2 = 1 is an element of the integers is a true statement.
Note: y = 2 is a witness.
Therefore, this statement is true.

Negation: $\forall \; y \in \mathbb{Z}, \dfrac{y}{2} \notin \mathbb{Z}$

For all y elements of the integers, y/2 is not an element of the integers.
Let y = 2, then 2/2 is not an element of the integers is a false statement.
Note: y = 2 is a counterexample.
Therefore, this statement is false.

3. $\forall \; y \in \mathbb{N}, \dfrac{3}{y} \notin \mathbb{N}$

For all y elements of the natural numbers, 3/y is not a natural number.
Let y = 3, then 3/3 is not an element of the natural numbers is a false statement.
Note: y = 3 is a counterexample.
Therefore, this statement is false.

Negation: $\exists \; y \in \mathbb{N}, \ni \dfrac{3}{y} \in \mathbb{N}$

There exists a y element of the natural numbers, such that 3/y is a natural number.
Let y = 3, then 3/3 = 1 is an element of the natural numbers is a true statement.
Note: y = 2 is a witness.
Therefore, this statement is true.

5. $\exists\ x \in \mathbb{N}, \ni\ x^2 \geq x$

There exists an a element of the natural numbers, such that x^2 is greater than or equal to x.
Let x = 2, then $2^2 \geq 2$ is a true statement.
Note: x = 2 is a witness.
Therefore, this statement is true.

Negation: $\forall\ x \in \mathbb{N},\ x^2 < x$

For all x elements of the natural numbers, $x^2 < x$.
Let x = 0, then $0^2 < 0$ is a false statement.
Note: x = 0 is a counterexample.
Therefore, this statement is false.

7. $\forall\ x \in \mathbb{R},\ x^2 \geq x$

For all x elements of the real numbers, $x^2 < x$.
Let x = 1/2, then $(1/2)^2 \geq (1/2)$ is a false statement.
Note: x = 1/2 is a counterexample.
Therefore, this statement is false.

Negation: $\exists\ x \in \mathbb{R}, \ni\ x^2 < x$

There exists an x element of the real numbers, such that $x^2 < x$.
Let x = 1/2, then $(1/2)^2 < (1/2)$ is a true statement.
Note: x = 1/2 is a witness.
Therefore, this statement is true.

9. $\forall\ x \in W,\ x^2 \geq 0$

For all x in the whole numbers, $x^2 \geq 0$.
This is a true for all statement, which is one of the two harder cases to justify.
x = 0 is the first element of the whole numbers, and $0^2 \geq 0$ is true.
x = 1 is the second element of the whole numbers, and $1^2 \geq 0$ is true.
x = 2 is the first element of the whole numbers, and $2^2 \geq 0$ is true.
... for all whole numbers
Therefore, this statement is true.

Negation: $\exists\ x \in W, \ni x^2 < 0$

There exists an x element of the whole numbers, such that $x^2 < 0$.
This "there exists" statement is false, and that makes this one of the two harder cases to justify. You may think we just need to say something like let x = 1. But what have we really done? Absolutely nothing! The statement says "there exists and x in W, ..", and if this is false we have to verify NO X IN W WORKS! We have to make it clear to our reader that it is false "for all" x in whole numbers.
x = 0 is the first element of the whole numbers, and $(0)^2 < 0$ is false.
x = 1 is the second element of the whole numbers, and $(1)^2 < 0$ is false.
x = 2 is the third element of the whole numbers, and $(2)^2 < 0$ is false.
... for all elements of the whole numbers
Thus, no x in the whole numbers is true. Thus, the "there exists" statement is false.
Therefore, this statement is false.

11. $\forall \ x \in \mathbb{N}, \ x+1 > x$

For all x in the natural numbers, x + 1 > x.
This is a true for all statement, which is one of the two harder cases to justify.
x = 1 is the first element of the natural numbers, and 1 + 1 > 1 is true.
x = 2 is the second element of the natural numbers, and 2 + 1 > 2 is true.
x = 3 is the first element of the natural numbers, and 3 + 1 > 3 is true.
... for all natural numbers
Therefore, this statement is true.

Negation: $\exists \ x \in \mathbb{N}, \ x+1 \leq x$

There exists an x element of the whole numbers, such that x + 1 $\leq$ x.
This "there exists" statement is false, and that makes this one of the two harder cases to justify. You may think we just need to say something like let x = 1. But what have we really done? Absolutely nothing! The statement says "there exists and x in N, ..", and if this is false we have to verify NO X IN N WORKS! We have to make it clear to our reader that it is false "for all" x in natural numbers.
x = 1 is the first element of the natural numbers, and 1 + 1 $\leq$ 1 is false.
x = 2 is the second element of the natural numbers, and 2 + 1 $\leq$ 2 is false.
x = 3 is the third element of the natural numbers, and 3 + 1 $\leq$ 3 is false.
... for all elements of the natural numbers
Thus, no x in the natural numbers is true. Thus, the "there exists" statement is false.
Therefore, this statement is false.

13. $\exists \ x \in \mathbb{R}, \ni \ x+1 \geq 0$

There exists an a element of the real numbers, such that x + 1 is greater than or equal to 0.
Let x = 2, then 2 + 1 $\geq$ 0 is a true statement.
Note: x = 2 is a witness.
Therefore, this statement is true.

Negation: $\forall \ x \in \mathbb{R}, \ x+1 < 0$

For all x elements of the real numbers, x+ 1 < 0.
Let x = 0, then 0 + 1 < 0 is a false statement.
Note: x = 0 is a counterexample.
Therefore, this statement is false.

15. $\forall \ x, y \in \mathbb{N}, \ x < y$

For all x and y elements of the natural numbers, x is less than y.
Let x = 3, and y = 1, then 3 < 1 is a false statement.
Note: x = 3, y = 1 is a counterexample.
Therefore, this statement is false.

Negation: $\exists \ x, y \in \mathbb{N}, \ni \ x \geq y$

There exists an x and y element of the natural numbers, such x is greater or equal to y.
Let x = 3, and y = 1, then 3 $\geq$ 1 is a true statement.
Note: x = 3, y = 1 is a witness.
Therefore, this statement is true.