Here are the four possible functions:

$F(a) = x, F(b) = y$, OR

$F(a) = y, F(b) = x$, OR

$F(a) = x, F(b) = x$, OR

$F(a) = y, F(b) = y$.

11. How many graphs contain both the point $A = (0, 0)$ and the point $B = (1, 1)$ — 1 / 1 point

- (•) Infinitely many
- ( ) None
- ( ) 2
- ( ) 1

✓ **Correct**
The graphs of $f(x) = x, g(x) = x^2, h(x) = x^3, s(x) = x^4, \ldots$ all contain both A and B

12. Suppose that $g : \mathbb{R} \to \mathbb{R}$ is a continuous function whose graph intersects the x-axis more than once. Which of the following statements is true? — 1 / 1 point

- ( ) All of the above.
- (•) g is neither strictly increasing nor strictly decreasing.
- ( ) g is strictly decreasing.
- ( ) g is strictly increasing.

✓ **Correct**
The function g fails the horizontal line test, so it can neither be strictly increasing nor strictly decreasing.

13. Find the slope of the line segment between the points $A = (1, 1)$ and $B = (5, 3)$. — 1 / 1 point

- ( ) 4
- (•) $\frac{1}{2}$
- ( ) 2
- ( ) $\sqrt{20}$

✓ **Correct**
The slope of this line segment is $\frac{3-1}{5-1} = \frac{1}{2}$, where $3 - 1$ is the rise and $5 - 1$ is the run.