**COMPARING FUNCTIONS**

1.) Neveen Ayad and Fatimah Jameel created two functions for their math class

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**Neveen’s Graphical Fatimah’s Algebraic**

y = 2x + 1

What are some thing you notice about the graph?

1)

2)

What are some things you know about the Algebraic?

1)

2)

Which statement is true about the y-intercepts of these two functions?

A. The value of the y-intercept of Naveen’s function is half the value of the y-intercept of Fatimah’s function.

B. The y-intercepts of both functions have the same value.

C. The value of the y-intercept of Naveen’s function is greater than the value of the y-intercept of Fatimah’s function.

D. The values of the y-intercepts of both functions have values that differ only in sign.

2.) Fatma Jouni and Essa Saleh created two functions for their math class.

**Fatma’s Verbal Essa’s Table**

This function multiplies the input by -3.

|  |  |
| --- | --- |
| **x** | **y** |
| -1 | 5 |
| 0 | 2 |
| 1 | -1 |
| 2 | -4 |
| 3 | -7 |

What are some thing you notice about the verbal?

1)

2)

What are some things you know about the table?

1)

2)

Which statement is true about the rate of change of these two functions?

A. The value of the rate of change of Fatma’s function is twice the value of the rate of change of Essa’s function.

B. The values of the rate of change of both functions have values that differ only in sign.

C. The rate of change of both functions have the same value.

D. The value of the rate of change of Fatma’s function is greater than the value of the rate of change of Essa’s function.

3.) Jabir Awadh and Ryan Soofi created two functions for their math class.

**Jabir’s Verbal Ryan’s Table**

|  |  |
| --- | --- |
| **x** | **y** |
| 4 | -1 |
| 6 | -3 |
| 8 | -5 |
| 10 | -7 |
| 12 | -9 |

y = 4x - 1

What are some thing you notice about the verbal?

1)

2)

What are some things you know about the table?

1)

2)

Which statement is true about the y-intercepts of these two functions?

A. The value of the y-intercept of Ryan’s function is Jabir’s y-intercept value minus two.

B. The y-intercepts of both functions have the same value.

C. The value of the y-intercept of Jabir’s function is less than the value of the y-intercept of Ryan’s function.

D. The values of the y-intercepts of both functions have values that differ only in sign.

4.) Nada Kardashian and Ikdar Smiley created two functions for their math class.

 **Nada’s Graphical Ikdar’s Algebraic**

 **y = -x + 3**

What are some thing you notice about the verbal?

1)

2)

What are some things you know about the table?

1)

2)

Which statement is true about the rate of change of these two functions?

A. The value of the rate of change of Ikdar’s function is half the value of the rate of change of Nada’s function.

B. The values of the rate of change of both functions have values that differ only in sign.

C. The rate of change of both functions have the same value.

D. The value of the rate of change of Ikdar’s function is greater than the value of the rate of change of Nada’s function.