

START

$$f(x) = -4x + 7$$

$$g(x) = x^2 + 9x - 2$$

$$h(x) = -7x + 2$$

$$l(x) = 5x + 6$$

$$m(x) = x^2 - 3x - 11$$

$$k(x) = x^2 - 5x + 12$$

| | | | | |
|--|---|---|--|--|
| -33 | 68 | -26 Choose an opponent to go back 5 spaces | 50 | $-\frac{53}{4}$ |
| 31 | -13 | 26 | 12 | $\frac{87}{4}$ Move to a negative number of your choice |
| $-\frac{107}{9}$ | 20 Move an opponent to a negative number | -11 | 18 | -10 |
| 16 | $-\frac{37}{4}$ | $\frac{59}{4}$ Choose an opponent to lose a turn | -9 | 13 |
| -7 | $\frac{25}{2}$ | $-\frac{25}{4}$ | 12 | -5 Move to a positive number of your choice |
| $-\frac{17}{4}$ | 11 Move an opponent to a positive number | -2 | $\frac{94}{9}$ | $-\frac{3}{2}$ |
| 9 | -1 | 8 | $-\frac{1}{3}$ Choose an opponent to go back 5 spaces | $\frac{23}{3}$ |
| 1 Choose an opponent to lose a turn | 7 | $\frac{10}{9}$ | 6 | 2 |
| $\frac{17}{3}$ | 3 | $\frac{11}{2}$ | $\frac{7}{2}$ Move back 17 spaces | Evaluate the function you rolled for $a + 4$ |

END

FUNCTION GAME RULES

You should start with 3 dice.

1st die should have $\{0, \frac{1}{3}, 1, 2, 4, 5\}$

2nd die should have $\{-\frac{3}{2}, -1, -\frac{1}{2}, \text{move ahead 3, go back 3, lose a turn}\}$

3rd die should have $\{f(x), g(x), h(x), k(x), l(x), m(x)\}$

On each turn:

- Roll the dice
- Evaluate the function at the value(s) you rolled. You may pick either value you want and move to that space on the board. If the space you move to says to do something, you must follow the instructions on the space.

Example: If you rolled 0, $f(x)$, and -1 , you would do the following:

$$f(0) = -4(0) + 7 = 7$$

$$f(-1) = -4(-1) + 7 = 11$$

Then you would choose to move to either 7 or 11 on the board.

EXCEPTIONS:

- You must move every turn, even if that means that you have to go backward.
- If you roll move ahead 3, go back 3, or lose a turn, you must follow the instructions on the dice instead of evaluating function.
- Once you reach the last row, if your roll causes you to have to go backward, you must move forward 1 space, and then choose an opponent of your choice to move to the space that you would have moved to (even if the opponent is in the last row).

The game is over when someone reaches end, or after a set amount of time.

Answer Grid

| x | $f(x)$ | $g(x)$ | $h(x)$ | $k(x)$ | $l(x)$ | $m(x)$ |
|----------------|----------------|-----------------|----------------|----------------|----------------|------------------|
| 5 | -13 | 68 | -33 | 12 | 31 | -1 |
| 2 | -1 | 20 | -12 | 6 | 16 | -13 |
| $-\frac{3}{2}$ | 13 | $-\frac{53}{4}$ | $\frac{25}{2}$ | $\frac{87}{4}$ | $-\frac{3}{2}$ | $-\frac{17}{4}$ |
| 4 | -9 | 50 | -26 | 8 | 26 | -7 |
| 1 | 3 | 8 | -5 | 8 | 11 | -13 |
| -1 | 11 | -10 | 9 | 18 | 1 | -7 |
| 0 | 7 | -2 | 2 | 12 | 6 | -11 |
| $-\frac{1}{2}$ | 9 | $-\frac{25}{4}$ | $\frac{11}{2}$ | $\frac{59}{4}$ | $\frac{7}{2}$ | $-\frac{37}{4}$ |
| $\frac{1}{3}$ | $\frac{17}{3}$ | $\frac{10}{9}$ | $-\frac{1}{3}$ | $\frac{94}{9}$ | $\frac{23}{3}$ | $-\frac{107}{9}$ |