

Sample Student Work – H

Post-Assessment

Name _____

Create your own version of the Number Game. You must create at least nine criteria. With at least four give examples of numbers that do and don't fit the criteria. Along with your nine criteria and examples you must give a list of ten numbers that would generate a high score. The game scoring criteria must include at least four different number types that are subsets of the real number system. Points awarded cannot exceed 10 in each one. Finally, give a few reasons why you selected the ten numbers that you did for the game.

9 Criteria – offer examples and non examples for at least four of the nine

1. For each 0 give 5 points
ex: 100, 0, 10, 20, 30 non-ex: 27, 32, 44, 41, 73
2. For each rational number give 2 points
ex: 10/23
3. For each irrational number give 5 points
ex: $\sqrt{5}$, $.23\dots$, $\sqrt{2}$ non-ex: 5, 4, 23, 4
4. Sum of all numbers of 600 give 8 points
5. Product is negative give 6 points
6. each decimal (non-repeating, non-terminating) = 10 points
ex: .23469..., .527981... non-ex: .25, .3, .2
7. For each fraction give 4 points
ex: $\frac{3}{4}$, $\frac{3}{7}$, $\frac{3}{9}$ non-ex: .25, .3, 5, 9, $\sqrt{4}$
8. For each whole number give 2 points
9. For each integer give 3 points

~~25~~
~~6~~
~~35~~
~~8~~
~~6~~
~~40~~
~~8~~
~~7~~
~~9~~
742

10 Numbers: 1,000, 0, -10, .2347..., .5798..., .32109..., $\frac{2}{3}$, $\frac{9}{4}$, $\sqrt{5}$, .23469.....

Reasons for selecting them:

I selected 1,000, 0, and -10 so I could get five points for each zero. I made 10 negative to get 6 more points and make my product negative. I chose irrational decimals because they give me 10 points. I chose fractions to get 4 points. I chose the $\sqrt{5}$ to get five points.

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