**GSE Algebra 2 Unit 4: Rational and Radical Relationships**

**Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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| **Unit: 4B** | **Test Review** |
| 1. Solve the rational equation | 1. Solve the rational equation |
| 1. Kent can paint a certain room in 6 hours, but Kendra needs 4 hours to paint same room. How long does it take then to paint the room if they work together.? | 1. Marco can build a lap top twice as fast as Cliff. Working together, it takes them 5 hours How long would it have taken Marco working alone? |
| 1. Write a rational function of the form  that has the given vertical asymptote(s) and zero(s): zero of x = 1; undefined at x = 3 | 1. Write a rational function of the form  that has the given vertical asymptote(s) and zero(s): vertical asymptotes at x = 1 and x = -2; zero at x = 3 |
| 1. Sketch the graph of the given rational function on a coordinate plane. Include asymptotes and zeros, if any. | 1. Sketch the graph of the given rational function on a coordinate plane. Include asymptotes and zeros, if any. |
| 1. Find the zero(s) of each rational function | 1. Find the zero(s) of each rational function |
| 1. For the following functions find the properties of the function: x-intercept or zero, y-intercept, vertical asymptote and the horizontal asymptote.     x-int:\_\_\_\_\_\_\_\_\_\_\_\_(write as an ordered pair)  y-int: :\_\_\_\_\_\_\_\_\_\_\_\_(write as an ordered pair)  Vert asy:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  Horz asy:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | 1. For the function below find the x-intercept, the y intercept, the vertical asymptote and the horizontal asymptote.     x-int:\_\_\_\_\_\_\_\_\_\_\_\_(write as an ordered pair)  y-int: :\_\_\_\_\_\_\_\_\_\_\_\_(write as an ordered pair)  Vert asy:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  Horz asy:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  Write the equation for the graph:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |