**IM3H: Module 2 Rational Functions Review**

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| **Solve the following equations, state any extraneous solutions** | | |
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| **Identify the key features of each function. Graph each function** | | |
|  | holes:  y-intercept:  x-intercept(s):  domain:  vertical asymptotes:  horizontal asymptotes:  slant asymptotes: | |
| Graph. | | |
| vertical asymptotes:  horizontal asymptotes:  slant asymptotes: | | holes:  y-intercept:  x-intercept(s):  domain: |
| Graph. | | |
| vertical asymptotes:  horizontal asymptotes:  slant asymptotes: | | holes:  y-intercept:  x-intercept(s):  domain: |
| Graph. | | |
| **Simplify each expression, and state restrictions.** | | |
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| **Solve.** | | |
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| 1. Write a rational function with the following features.  * Domain: * HA at * This function has no real roots |
| 1. Write a rational function with the following features.  * (5, 27) is on the function * HA at * VA at |
| 1. Write a rational function with the following features.  * (12, 0) is on the function * (0, 4) is on the function * HA at * VA at |
| 1. Write a rational function with the following features.  * Slant asymptote at y=4x+9 * VA at x=2 * (1,-2) is on the function |