**Honors Math 3 Rationals REVIEW Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Simplify each of the following**

1. 2.

3. 4.

**Solve each of the following. Make sure to check for extraneous solutions.**

5. 6.

7.

**Solve each of the following. Show all work!!**

8. Mari and Liam can each wash a car and vacuum its interior in 2 hours. Zach needs 3 hours to do this same job alone. If Zach, Liam, and Mari work together, how long will it take them to clean a car?

9. 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?

**For each of the following, find the Vertical Asymptote, Horizontal Asymptote, and Holes.**

10. 11.

VA: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ VA: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

HA: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ HA: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Hole: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Hole: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_