Use the given values to set up a variation equation and find the value of   
the missing variable.

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_

4. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_

5. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_

6. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_

7. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_

8. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_

13. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

14. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. y varies inversely as x and y = 5 2. y varies jointly as x and z and   
    when x = 10, find y when x = 2 and y = 12 when x = - 2 and z = 3.  
    Find y when x = 4 and z = - 1.

Perform the indicated operation. Simplify the results and state restrictions.

3.  4. 

5.  6. 

7.  8. 

Solve the equation. Be sure to identify restrictions and check for extraneous solutions.

9. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

10. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

11. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

12. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

13. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

9.  10. 

11.  12. 

13. 