Inverse Variation

Solve. Assume that y varies inversely as x.

1. Suppose $y = 9$ when $x = 4$. Find y when $x = 12$.

2. Find x when $y = 4$ if $y = -4$ when $x = 6$.

3. Find x when $y = 7$ if $y = -2$ when $x = -14$.

4. Suppose $y = -2$ when $x = 8$. Find y when $x = 4$.

5. Suppose $y = -9$ when $x = 2$. Find y when $x = -3$.

6. Suppose $y = 22$ when $x = 3$. Find y when $x = -6$.

7. Find x when $y = 9$ if $y = -3$ when $x = -18$.

8. Suppose $y = 5$ when $x = 8$. Find y when $x = 4$.

9. Find x when $y = 15$ if $y = -6$ when $x = 2.5$.

10. If $y = 3.5$ when $x = 2$, find y when $x = 5$.

11. If $y = 2.4$ when $x = 5$, find y when $x = 6$.

12. Find x when $y = -10$ if $y = -8$ when $x = 12$.

13. Suppose $y = -3$ when $x = -0.4$. Find y when $x = -6$.

14. If $y = -3.8$ when $x = -4$, find y when $x = 2$.