

Name: _____

1. Solve the equation: $x - \frac{1}{10x} = -\frac{3}{10}$

2. Solve for x : $\frac{1}{2}mx^2 = \frac{1}{3}tx$

3. It takes Sam 10 minutes longer than it takes Jo to do a job. After Sam works for 15 minutes and Jo works for 10 minutes, the job is done. How long would it take Sam to do the job alone?

4. Usually Jonathan watches "Family Guy" while doing his math homework, and because the show distracts him, it takes him 10 minutes longer than it would take him if he were to turn the television off while doing his homework. One night, Jonathan is doing his math homework while watching "Family Guy," and after 15 minutes he turns off the television and it takes him 10 more minutes to complete his homework. How long would it take Jonathan to do his math homework if the television is off the entire time that he is working?

5. The length of a rectangle is three times its width. If the width is diminished by 1 inch and the length is increased by 3 inches, the area of the new rectangle is 72 square inches. Find the dimensions of the new rectangle.

6. A picture frame measures 20 cm by 14 cm. If 160 sq. cm of picture shows, what is the width of the frame?